



ENSURING ACCESS TO QUALITY
HEALTH CARE IN CENTRAL ASIA

TECHNICAL REPORT:

National Health Insurance Systems: A Review of Selected International Experience

Authors:

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**21 February, 2000
Almaty, Kazakhstan**



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Abbreviations

BNHI	Bureau of National Health Insurance
CCA	Countries of Central Asia
DM	Deutschmark
DRG	(payment per treated case model)
GDP	gross domestic product
GHIC	General Health Insurance Company
GP	General Practitioner
HMO	(integrated insurer-provider organizations)
IMSS	Mexican Social Security Institute
ISAPREs	(private insurance companies)
MHI	Mandatory health insurance
MHIF	Mandatory health insurance fund
MHIS	Mandatory health insurance system
MOH	Ministry of Health
MSA	Medical savings accounts
NGO	nongovernmental organization
NHF	National Health Fund
NHIF	National Health Insurance Fund
NHS	National Health Service
PHIC	Philippine Health Insurance Corporation
PIF	Private Insurance Funds
PNIA	Philippine National Health Insurance Act of 1995
PRC	People's Republic of China
SIS	Statutory Insurance System
STI	sexually transmitted infection
TB	Tuberculosis

I. Abstract

In order to ensure the principles of equity, access, and efficiency of care in the health service delivery system, this report looks at the health financing experience of 16 diverse countries worldwide. Specifically, the report analyzes the role of mandatory health insurance (MHI) as one of the key funding sources in health delivery systems and concludes that centralized public funding systems (such as the MHI) are the most appropriate way to ensure these principles. While private funding systems reduce access to healthcare for the poor and vulnerable, public funding systems in low-income countries often do not generate sufficient revenues for provision of healthcare. In such cases it is necessary to define and limit healthcare services to those that are most cost-effective in addressing the main causes of morbidity and mortality.

The report also looks at MHI experience in Kazakhstan. While MHI was terminated before conclusions as to its utility and efficacy could be made, there is evidence, despite numerous shortfalls, that it was beginning to be the driver of health sector innovation in Kazakhstan.

II. Executive Summary

The purpose of this paper is to synthesize international experience with different models of financing the delivery of basic health care benefits to the population, and in particular to analyze the role of mandatory health insurance (MHI) as one of the key funding sources for such benefits in different international systems. The health financing and delivery systems of 16 countries with different socioeconomic, cultural, and historical contexts, from Central and Eastern Europe, Western Europe, Asia, and Latin America, were reviewed for this analysis. A more in-depth analysis of Kazakhstan's experience with MHI between 1995 and 1999 is also presented as an appendix, recognizing the importance of using the lessons learned from it in the growing policy and technical dialogue on health insurance.

From the review of international experience with health financing systems, the authors drew the following main conclusions:

General Conclusions

1. Regardless of the type of health service delivery system (public, private or a public-private mix), there is evidence that centralized public funding systems, based on budget (general tax) financing or MHI, are the most appropriate way to finance a basic package of health care services that observes the principles of equity, access, and efficiency of care.
2. There does not seem to be a clear advantage of either public budget systems or MHI. The success of any financing system depends almost entirely on how the system is designed and administered.
3. Private funds/private insurance should not be the main source of financing for health care because relying on private financing reduces access to health care among poor and vulnerable populations, and does not generate sufficient resources to finance basic health care for everyone.
4. Although a centralized public funding system is the best option for most efficiently achieving universal access to health care, low-income countries may not generate sufficient public revenues to finance comprehensive health care services. Therefore it is necessary for these countries to define and limit the package of publicly funded health care services to those that are most cost-effective in addressing the main causes of morbidity and mortality, and to provide protection against catastrophic illness.

Private Financing

1. In countries that rely heavily on private out-of-pocket expenditures for health care, it is important to facilitate the introduction of a carefully regulated private insurance system. From international experience, three main conclusions emerge with regard to private insurance. First, the public budget-financed or insurance system should be designed with private insurance added subsequently. Second, the private insurance system should be restricted to cover benefits or amenities that are not covered by the publicly financed program. Third, given the market failures in the private health insurance market, a strong regulatory framework for private health insurance should be established.
2. Medical savings accounts (MSAs) are being considered by some countries that rely heavily on out-of-pocket expenditures to finance health care. This model is not well tested and does not offer clear advantages over a budget financing or MHI approach. MSAs do not provide adequate pooling of risk, they do not preserve the principle of equity, and they require large administrative and regulatory structures, a back-up catastrophic insurance system, and a mechanism to insure that the accumulated funds are invested prudently.

Mandatory Health Insurance (MHI)

1. Adding a health insurance system to an existing budget-financed system in transitional economies may, but will usually not, increase overall resources for health care.

2. Introducing health insurance in countries such as Kazakhstan, where a public budget national health service already exists, simply to increase the overall resources available to the health sector is unlikely to bring the desired effect. However, insurance may be an important driving force for overall reform of the health sector, and can be a vehicle to restrict the range of health care services provided by the state free of charge.
3. Experience shows that introducing MHI in transitional economies where a public budget health service already exists will be unsuccessful unless certain preconditions are in place, including: (a) decentralization of health care providers with management autonomy; (b) a mechanism in place to pay health providers according to services rather than inputs; and (c) a well-functioning mechanism in place to collect earmarked taxes, individual contributions, and government transfers to cover the non-working population.

Service Delivery

1. For providing basic health care services, nearly all of the countries have a mixed public and private delivery system where privately and publicly owned health care facilities are equally qualified to receive public funds to provide basic health care services to the population. In many countries, public funds are the major source of income for private health care providers.
2. In countries moving to privatize a fully publicly owned delivery system, the process of privatization must be carefully planned. Evidence from countries such as China and the Czech Republic shows that if privatization is not clearly planned and supported by the appropriate institutional structure, there will be an overall worsening of equity and access to care.

Kazakhstan's Experience with MHI

1. Health insurance in Kazakhstan was canceled before positive results that it achieved in the demonstration oblasts of Karaganda and East Kazakhstan were allowed to mature. This makes it impossible to conclude whether the short-lived health insurance was an overall success or a failure. In the demonstration oblasts, however, new provider payment systems and computerized management information systems were beginning to create incentives to health providers to lower costs, increase the quality of services, and use patient satisfaction as a major indicator of success.
2. Being managed by an off-budget fund under the government, the mandatory health insurance system (MHIS) had the authority to pool its funds at the oblast level and allocate payments to providers by services provided instead of chapter budgets. This financing structure creates the conditions necessary for rationalization of the delivery system and paying for health care services rather than financing physical structures, allowing money "to follow the patient" through the delivery system. However, the off-budget status of the MHI Fund was not *sufficient* to realize these advantages, and may not even *be necessary*. There may be other mechanisms that can achieve the same goals and should be explored such as a special purpose on-budget fund.
3. Although health insurance was beginning to be the driver of innovation in the health sector in Kazakhstan, it suffered from numerous shortages, which impeded its ability to be the health system's vehicle for reform. The insurance system was not designed appropriately to bring additional resources into health care. Its funding was made dependent on the political will of local governments, which often would simply refuse to fund it. Health insurance established a second basic benefits package in addition to the existing basic package funded by the state budget. It also created a second payer of the same health facilities already funded from the state/local budget. These shortages brought a great deal of confusion into the health system and made the coexistence of the two payers and two basic benefits packages counterproductive to the implementation of health reforms.

III. Introduction

The purpose of this paper is to synthesize international experience with different models of financing and delivering basic health care services to a population, and in particular to analyze the role of mandatory health insurance (MHI) in different international systems. The report is constrained by the materials that were available to the authors at the time of writing and is not an exhaustive review of all international systems. It is important to note that the analysis is based on snapshot descriptions of the various systems at a particular point in time. The situation observed at that time is analyzed and used to draw conclusions, but the countries may have progressed and changed their policies since the materials were published. Nonetheless, the experience of other countries is useful, even if those countries no longer face the same conditions or are no longer following those particular policies.

The review is organized as follows. The next section presents international experience with different health care financing and service delivery options, with a particular focus on insurance systems. Section V presents international experience with different approaches to designing and implementing national mandatory health insurance systems (MHISs). In Section VI, conclusions are presented and recommendations are made to guide the further development of health care financing reforms in Kazakhstan and in particular the decision whether to reintroduce a system of MHI as an additional source of health care financing. Four appendices contain more details on the historical development of selected national health care systems, a review of Kazakhstan's experience implementing MHI from 1995 to 1998, and additional technical materials on health care financing reform.

IV. International Experience Financing and Providing Basic Health Care Services

A. Options for Financing and Delivering Basic Health Care Services

As shown in Table 1, the countries reviewed in this study use varying combinations of health financing and delivery systems to provide basic health care to their populations. Analyzing the experience in 16 countries with different socioeconomic, cultural, and historical contexts, reveals general conclusions. The main conclusion is that regardless of the type of delivery system (public, private or a public-private mix) there is evidence from the countries reviewed that centralized public funding systems, based on budget (general tax) financing or MHI, are the most appropriate way to finance a basic package of health care services. Centralized public funding is the most efficient mechanism to achieve universal access to basic health care. All industrialized democracies, with the exception of the United States, have centralized public funding systems for financing all or most of their outpatient and hospital care. Countries that do not have centralized public financing face serious problems with equity and access to health care services, particularly among vulnerable populations. The public funding systems are typically supplemented with private insurance only to cover amenities and benefits beyond the basic package of health care services.

1. Service Delivery

For providing services, nearly all of the countries have a mixed public-private delivery system. The public budget and MHI financing systems operate independently of the form of ownership of health care facilities. In nearly all of the countries reviewed, privately owned health care facilities receive public funds to provide basic health care services to the population. In many countries, public funds are the major source of income for most private health care providers.

In countries moving to privatize a fully publicly owned delivery system, the process of privatization must be carefully planned. In their review of the Central and Eastern Europe experience, Preker and Feacham conclude that gradual and targeted privatization and building public-private partnerships in health care brings new market-oriented incentives for efficiency and patient satisfaction. If privatization is not clearly planned and supported by the appropriate institutional structure, however, there will be an overall worsening of equity and access to care.

In China, for example, market reforms led to a drastic reduction in government commitment to financing and delivering health care, particularly in the rural areas. Privatization and the overall blurring of the lines between the public and private sectors took place with little planning and before systems of accountability were put in place. The result has been that most health care is now paid for out of pocket, which has led to the appearance of numerous ad hoc private insurance schemes and an overall decline in equity and access to basic health care.

In the Czech Republic, early in the transition period ownership of most health facilities was quickly transferred to local communities, and substantial parts of the former national health service have been privatized. Preker and Feacham conclude that instead of engendering a constructive partnership between the public and new private sector, unrestrained privatization within an excessively relaxed regulatory framework has led to “unscrupulous profiteering and pillaging by health care providers and unchecked use by patients”. (Preker and Feacham 1995)

Table 1. Combinations of Financing and Delivering Health Care Services

FINANCING	PROVIDERS (of basic services)		
	Public	Private	Mixed Public-private
Public Budget ¹			Canada (physicians private; hospitals public) U.K. (physicians private; hospitals public)
MHI ²		Japan	Bulgaria (public and private physicians and public hospitals) Czech Republic (public and private physicians and public hospitals) France (public and private physicians and hospitals) Germany (physicians private; hospitals public and private) Israel
Mixed Public Budget/MHI	Kazakhstan (1996-98) Mexico Russia		Korea
Private Insurance			
Mixed Private Insurance and Public Budget and/or MHI	Hungary (budget, non-mandatory national health insurance, and private insurance)	U.S. (public budget 40%, private insurance 60%)	China Chile (allows public insurance tax to be channeled through private insurance providers)

2. Financing

Aside from centralized public funding systems, other options for financing health care rely largely on private financing sources, including private voluntary insurance and direct out-of-pocket payments for services. Private financing plays some role in the financing systems of all of the countries reviewed, either in the form of co-payments for services, individual contributions for insurance premiums, or

¹ “Public Budget” means that health facilities are financed directly by the public budget. This does not include transfers from the public budget to the health insurance funds to finance benefits for some population groups.

² “Insurance” implies that the payment of a premium by or on behalf of the individual is a requirement for entitlement to benefits.

supplemental private insurance. Appropriately placed, direct out-of-pocket charges may be an effective source of funds to supplement public health financing, and can provide incentives to individuals to use health care services in the most cost-effective way.

On their own, however, private payments are not effective as the major source of health care financing. International experience shows that relying on private funds as the main source of financing for health care generates three main problems. First, private financing reduces access to health care among poor and vulnerable populations. Second, even in a wealthy population, private financing does not generate sufficient resources to finance basic health care for everyone. Finally, individual health care expenditures are difficult to predict and can be extremely high, so there is a need to pool the financial risk associated with illness to spread the risk across a larger population and reduce or limit any one individual's financial loss. This is done more effectively by governments than private insurers because of market failures in the private health insurance market, which will be discussed in more detail in "Private Health Insurance" below.

Although it is clear from the international evidence that centralized public funding is the best mechanism for financing basic health care services to achieve equity, access and efficiency, low-income countries may not be able to generate sufficient public revenues to provide comprehensive health care services for their populations. This is the case because the base of taxable income is low, a high proportion of income is generated in the rural and informal sectors outside the tax system, and tax collection mechanisms are often weak. Private payments, therefore, make up a significant portion of health care financing in lower income countries. (Schieber and Maeda 1997) Of the countries reviewed in this study, lower income countries such as China and Korea rely most heavily on direct out-of-pocket payments for health care. In addition, it is suspected that private informal payments are also a significant source of health care financing in the transitional economies of Bulgaria, the Czech Republic, Hungary, and Russia.

In the case of low-income countries that rely on private funds for a significant portion of health care financing, it is important to define and limit the package of health care services that will be financed by the government either through budget funding or MHI. The services financed from government sources should be those that are cost-effective, provide protection against catastrophic illness, and that address the main causes of morbidity and mortality in the country. It is also important to facilitate the introduction of a carefully regulated private insurance system to pool the risks associated with the large private expenditures that will still be required to fully finance the health care system beyond the package of services financed by government sources.

Some countries that rely heavily on private out-of-pocket financing for health care have explored the option of establishing personal savings accounts earmarked for personal health care expenditures as a way to mobilize additional private health care funds. This approach, known as Medical Savings Accounts (MSAs), is similar to a personal savings account in a bank, where each person in the country would have funds added to their account on a regular basis, either by their employer, themselves, or by the government. These funds would be available to the individual only for health and medical needs, and would be utilized as the person sees fit. MSAs would have to be coupled with a catastrophic insurance policy that insures individuals against large health expenditures beyond what they are able to accumulate in their MSA.

There are two basic models of MSAs, the one adopted by Singapore and the United States model. Singapore, however, is the world's only example of an MSA program integrated with a country's health financing structure. (Nichols, et al. 1997) Both models are backed by a public or private insurance mechanism that covers catastrophic costs above some threshold deductible if the savings account is exhausted. To encourage individuals to be prudent consumers of medical services, they can spend any unused funds in a variety of ways, including rolling the surplus over to cover future medical expenses, spending it on non-medical consumption, and passing it on to heirs at the time of death.

The basic assumption underlying MSAs is that each person would be more responsible for their own health services, being careful only to spend the amount which they feel necessary, and thus only buying

services that are necessary. MSAs do not, however, provide an adequate mechanism for pooling the risk associated with private health care expenditures. Although the risk for an individual is pooled across time, risks are not pooled across individuals. An individual, therefore, will have a deficit of funds early in the system until sufficient savings are accumulated to cover any significant health care expenditures. In order to overcome this deficiency, the MSA program in Singapore does not cover outpatient health care expenditures. Thus, an individual pays out of pocket for most routine health care costs, allowing the MSA balance to accumulate to cover larger inpatient expenditures.

MSAs make individuals directly responsible for their health care expenditures. If this approach is applied to the basic package of health care services for the entire population, it deviates strongly from the principle of equity and allocation of basic health care services based on need rather than ability to pay. Medical savings accounts also require large administrative and regulatory structures, a back-up catastrophic insurance system, and a mechanism to insure that the accumulated funds are invested prudently. It is not clear, therefore, what advantage such a system offers over an MHI approach for a national health financing system. The MSAs are still controversial and resultantly have not been tested beyond the high per capita income countries of the United States and Singapore.

B. Comparison of Public Budget and MHISs

Upon reviewing international experience, no clear, definitive conclusion on whether budget funding or MHI is the better financing system is revealed. Indeed the distinction between the two public financing systems is difficult to define and often becomes blurred in practice. (Jonsson and Musgrove 1997) The main distinction between “public budget” and “mandatory insurance” systems is the source of revenue. Public budget systems typically receive their revenues from general taxes, and mandatory insurance systems receive their revenues from earmarked, usually payroll, taxes. In practice, this distinction is not so clear. For example, nearly all mandatory insurance systems rely on some national or local budget transfers to provide insurance for non-working populations. In the countries reviewed for this study, budget transfers to health insurance funds cover the non-working population in Bulgaria, the Czech Republic, France, Germany, Hungary, Israel, Japan, the Philippines, Russia and Taiwan.

Public budget systems are usually administered by the financing agency (most often the Ministry of Health), whereas mandatory insurance systems may be administered by independent, even private as in the case of Chile, government-regulated bodies. This does not, however, imply that there is only a split between the purchaser and provider of health care in the insurance-financed systems. In the United Kingdom, for example, the system is financed by general taxes, but providers remain autonomous from the regional Health Authorities, which are the financing and administrative bodies.

A further distinction between the public budget and mandatory insurance systems is that insurance systems typically have criteria for eligibility, whereas in public budget systems individuals need not be affiliated with the system to receive benefits. Again, this distinction may not be accurate in practice because mandatory insurance systems are often universal, and public budget systems may cover only certain populations, such as the poor or non-working. In some countries, such as Chile, China, Korea, and Mexico, an MHIS coexists in parallel to a public budget system. The health insurance system covers the working population by financing services provided by a network of private or social security-run health facilities, while the public budget covers the poor or non-working population by financing and providing services in a separate network of facilities. This arrangement usually leads to a “two-tiered” system of health care, because the public health delivery network serves a population with little political power. The publicly run system is often under-financed and neglected, and the poor have limited access to poor quality health care. Of the countries reviewed, a public budget system and MHIS coexist in *the same* network of health facilities only in the countries of Central and Eastern Europe and the former Soviet Union.

Although public budget systems may theoretically be more efficient and equitable because administrative costs are lower, the taxation is more progressive and risks are pooled more equally; in practice, there is

not a clear advantage of either public budget systems or MHI.³ Whether a public budget or a mandatory insurance system is chosen is often influenced by ideological and social values in the country at the time.⁴ The success of the financing system depends almost entirely on the specific conditions in the country, and how the system is designed and administered. The next section focuses in more detail on international experience with health insurance, both private insurance and MHISs.

C. Private Health Insurance

Under voluntary private health insurance, people pay insurance premiums to private insurance companies, either out of pocket or through contributions from their employers. The premiums are calculated by the insurance companies for each individual based on the company's assessment of the probability or risk of claims by that individual. This is what is known as an "actuarially fair" premium. The main difference between private insurance and public mandatory insurance systems is that the premiums for private insurance are actuarially fair, whereas the premiums in a national mandatory insurance system link contributions for premiums to ability to pay, and do not adjust premiums paid by individuals to account for the individual's expected expenditure levels.

The private insurance companies pay for health care services for the individual as specified in the insurance contract, with agreed upon deductibles and co-payments. Private insurance companies compete for consumers, based on the benefits packages they offer, the price of premiums, quality of providers, and customer service.

1. Private Health Insurance Market Failures

Voluntary private health insurance is not relied upon as the primary health care financing mechanism in any country, with the exception of the United States. This is the case because there are several problems with private health insurance markets that make it almost impossible to ensure universal access, equity, and cost containment relying solely on private insurance.

The first problem with private insurance markets is called *adverse selection*. Adverse selection arises because individuals know more than insurance companies about their own risk of incurring health care expenditures. Therefore, people with higher than average risk are more likely to buy insurance at the company's actuarially fair premium than low-risk individuals. Since only higher-than-average risk individuals will consider it beneficial to buy the insurance policy, the insurance company finds that its costs are higher than originally calculated. If the company raises premiums to cover the higher costs, more low-risk individuals will drop out, and an even costlier group will be left. Under these conditions, the insurance market eventually breaks down. Insurance companies attempt to overcome this problem by excluding high-risk individuals from coverage, and trying to attract low-risk individuals through the design of their benefits packages and marketing.

Thus, the private insurance market designs its insurance coverage with the goal of minimizing the extent to which those in low-risk categories pay to support those at high risk. This poses a serious equity

³ Canada is an example of a country that has tried both systems and found general taxation to be more equitable and efficient. Canada started with a premium-based national insurance system. Premiums were uniform, not risk-related, and set well below the actual costs of running the system, with the difference made up from general tax revenues. The insurance authorities in Canada almost immediately determined that premiums in a universal system were simply a "regressive poll tax", costly to collect, covering only a small portion of health costs, and moreover with certain technical disadvantages for provincial income tax collections. Thus by the early 1970s most provinces decided to rely wholly on other tax revenues. (Evans and Law 1995)

⁴ For example, Chile had a national insurance system based on the German model between 1924 and 1952. Between 1950 and 1970, when the more socialist-oriented government was in power, a budget-financed national health service was established. In the 1980s following the right-wing military coup, the health care system was decentralized and is again financed by MHI, which may now be channeled through private insurers. Throughout these changes in financing and service delivery, which were driven largely by the ideological mood of the time, the fundamental goal of providing access to basic health care to the entire population has remained the same.

problem as those who need insurance most are often denied coverage. Private insurance companies often incur great administrative costs to identify and exclude high-risk individuals from coverage. A public insurance system has the opposite goal, to use the resources of the healthy and wealthy to support the poor and sick. This is achieved in a public insurance system by overcoming the adverse selection problem by making enrollment in the system mandatory.

The second problem with insurance markets, *moral hazard*, affects all types of insurance systems, public or private, mandatory or voluntary. Moral hazard is the tendency for individuals to use more health services under insurance than they would if they were paying all of the costs directly out of pocket. Moral hazard is usually addressed in insurance systems by making individuals responsible for at least some portion of the expenditures they incur, through co-payments, deductibles, and expenditure limits.

2. International Experience with Private Health Insurance

Private insurance typically plays three roles in the context of a national public health financing system:

- coverage for people who are ineligible for public insurance when public insurance does not provide universal coverage (China, U.S.);
- coverage for people who withdraw from a universal public insurance program (Germany, Hungary); and
- supplemental coverage for services not covered by the universal public insurance program (Canada, France, Japan, Philippines, U.K.). (Chollet and Lewis 1997)

From international experience, three main conclusions emerge with regard to the addition of private insurance options to a publicly financed health care system. First, the public budget-financed or insurance system should be designed initially, with private insurance added subsequently. If private insurance is developed first, as in the United States, the public system may become the insurer of last resort. This raises the costs of the public system as it is left with the sickest and poorest individuals who are excluded from private insurance.

The second conclusion is that the private insurance system should be restricted to cover benefits or amenities that are not covered by the publicly financed program. If individuals can opt out of the public system and receive the same benefits through private insurance, again the public system will be left with the sickest and poorest individuals, and a very low revenue base to cover their health care needs. It is important to establish the boundaries between the public and private insurance packages, otherwise private insurance companies will begin to also offer benefits from the public package, and individuals who purchase private insurance in addition to being covered by the public system will be paying for those benefits twice. Third, given the market failures in the private health insurance market, and the difficulty that individuals have accessing accurate information about the prices and quality of health care services, the government needs to provide a strong regulatory framework for private health insurance.

D. Mandatory Health Insurance (MHI)

From the countries reviewed, the introduction of a government-mandated health insurance system has evolved along one of two general paths. The first path, often observed in industrialized democracies, is a transition from ad hoc insurance schemes for workers, which were eventually united under a national system as the country became more affluent. For example, in Japan, France, and Germany, health care systems were financed through various voluntary health insurance schemes that were initiated for urban

industrial workers in the late 19th or early 20th centuries, and which were united under a national program when national incomes began rising by the middle of the 20th century.⁵

Other countries, such as Korea and Mexico, began with voluntary insurance schemes to cover workers, but did not make the full transition from worker-based insurance schemes to universal coverage. These countries currently have mixed systems of publicly financed and provided health care for the poor populations, and higher quality social insurance-financed health care for the urban, formally employed population. The result has been “two-tiered” health care systems with significant portions of the populations, particularly vulnerable groups, remaining without economic or physical access to basic health care services.

The second general path to MHI is a transition from a publicly financed and provided national health service to an insurance-financed system. This path is most frequently observed in the transition economies of Central and Eastern Europe and the former Soviet Union. An MHIS was introduced in these countries, often in parallel to the existing public budget system, with the main goal of bringing additional resources into the health sector. From a review of the experience of these countries, it can be concluded that health insurance financed through earmarked payroll taxes in transitional economies may, but will usually not, increase overall resources for health care. (Ensor and Thompson 1998, and Preker and Feacham 1995)

According to the analysis of Preker and Feacham (1995), health insurance did not mobilize additional resources for the health sector in the transitional economies for two reasons. First, the health insurance contributions in countries like Hungary replaced rather than supplemented budgetary sources of health finance; and, second, rising unemployment and a growing informal sector in countries like the Slovak Republic reduced compliance and eroded the original contributions base. When the government is forced to bail out an insolvent health insurance fund, as in the Czech Republic, shifting health care financing from the state budget to national health insurance may even damage efforts to reduce public expenditures.

In Russia, the experience has been mixed. During the initial period of MHI, real public health expenditures increased by 24 percent between 1992 and 1994 (although this is probably overstated due to an inappropriate GDP deflator). By 1995, however, the opposite trend had started and is still underway, as health spending has fallen in both absolute and relative terms. The overall decline in health spending has been greater than the decline in the country’s overall economy. Absolute health expenditures declined by ten percent between 1992 and 1995. (Sheiman 1997) Sheiman argues, however, that the earmarked payroll tax has protected the health sector from an even more dramatic fall in health care resources.

The conclusion can be drawn that introducing health insurance simply to increase the overall resources available to the health sector is unlikely to bring the desired effect. There may be other reasons, however, to introduce MHI in countries where a public budget national health service already exists. In a review of health insurance in transitional economies, Ensor and Thompson (1998) conclude that insurance may be an important driving force for overall reform of the health sector, and can be a vehicle to restrict the range of health care services provided by the state free of charge.

Experience from Korea shows that although the national health insurance program that was introduced in 1983 was flawed in design and implementation, and has not led to the desired improvements in efficiency and access to health care, health insurance has changed the attitudes and roles of both the government and individuals in the health care system. Insurance has increased the financial and social obligation of the government to meeting the health care needs of the population. In addition, the national insurance program has changed the public attitude toward health care, which is now viewed as a basic

⁵ Germany was the first country to unite “voluntary aid societies,” which provided health insurance to workers, and make participation in health insurance mandatory. The MHIS began in 1883 under the Sickness Insurance Act put forth by the first Chancellor of Germany, Otto von Bismarck.

right. The relative power of patients and providers has also changed. The interests of providers dominated the former health care system, which was financed by out-of-pocket expenditures. Under the insurance system, providers have lost some autonomy, as the government began to control the prices of health care services. However, under the insurance system, physicians have maintained incomes that are higher than those of the average population. (Yang 1995)

The conclusion is that the goals of the MHIS must be clear before it is introduced, and reasonable expectations must be maintained about what MHI can accomplish. If the main goal is to increase the resources available, the system is likely to fail to meet those expectations in an economy with a large rural population, or where a large segment of the working population is employed in the informal sector, outside the tax system. If health insurance is being introduced as a vehicle to reform the entire health sector and realign relationships between the government, providers, and the population, the new system may bring success.

V. Design and Implementation of MHIS

A. Coverage and Benefits

In reviewing international experience with respect to the benefits and coverage of MHISs, the following issues were considered and analyzed:

- Who is covered and with what benefits?
- If the system does not start with universal coverage, how was coverage expanded? Which groups were included first (employees, self-employed, pensioners, the non-working population, children)?
- How does the insurance benefits package relate to other existing packages for the population that is not covered?
- In the transition to universal coverage, how do those individuals not covered (particularly if vulnerable groups are not covered) gain access to health care?

As Henke (1992) points out in his review of national health insurance systems, universal coverage with a comprehensive insurance benefits package is the ultimate goal of social health insurance but will normally not be accomplished in one step. It is therefore necessary to analyze how this far-reaching objective can be attained gradually but progressively.

The review of international experience shows that in systems that are not starting from an existing national health service that already provides universal coverage, universal coverage was achieved over a period of several years, gradually phasing in new population groups. The exception is Canada, which began with universal coverage but gradually phased in a larger and more comprehensive benefits package.

1. Coverage

Nearly all countries that have achieved very high or complete health insurance coverage have gone through a transition of a compulsory health insurance scheme available to only that part of the population who pay contributions or shared payment with their employers. Countries have chosen different criteria for phasing in coverage and for excluding some groups initially. For example, in the Philippines, benefits are not extended to people who, due to poor access to health care, cannot take advantage of health insurance. In Korea, national health insurance was initially offered only to employees of big corporations (500 employees or more).

With regard to the enrollment of the population, clear groups for coverage with insurance have to be defined. Some countries grouped the population according to their employment status or type of employer (government employees, civil servants, private employees, self-employed, unemployed, low-

wage workers). In addition, occupational subgroups were sometimes used (miners, farmers, craftsmen, workers, sailors, etc.). The next step would be that federal or state law requires some of these groups to receive MHI coverage. This requirement could relate to all persons within this group or only to those below a certain income level. (Henke 1992)

Usually those not covered included the unemployed, the elderly, and the disabled. In most countries, some provision was made to ensure access to health care for vulnerable populations during the transition to universal coverage. For example, some countries covered the elderly as dependents of insured persons. Other countries built rights to health care on to cash benefits, given as part of their social security schemes. Thus, people receiving benefits for sickness, disability or unemployment, or pensions for widowhood or old age, were considered to have prepaid for insurance while they were working, which made them eligible for insurance while they were collecting other benefits or pensions. In some cases, a modest contribution was taken from pensions to cover the insurance premiums of the elderly. Those on social assistance had their contributions paid for them by the central or local government agency that provided the assistance. (Abel-Smith 1992)

2. Benefits

The basic benefits package is a set of services to which a beneficiary of a (national) health insurance system is entitled. Countries with national health insurance systems have one basic benefits package. Other health insurance packages, most often offered by private companies, are optional and it is up to the consumer to choose whether to buy them or not. No country, however, has two basic benefits (mandatory) packages covering the same beneficiaries. There is always the dilemma of what principles should be used to determine the balance between the number of beneficiaries, the type of health benefits, and available resources. Based on expert and country experience, we offer the following summary of guidelines in this area.

The amount a health insurance fund will spend depends not only on the number of individual members, but largely also on the benefits included in the program. The basis for selection of services in the package should take into account the population's needs and the effectiveness of the services, according to the standards of medical practice. (Henke 1992)

The choices of what health services should be provided universally can take the following two possible approaches:

- excluding certain medical treatments from the MHI coverage; and/or
- using protocols and guidelines to decide what benefits to include or exclude from the package. (Van De Ven 1996)

In 1991, the Dutch Government Committee on Choices in Health Care advised the government that only care that has proven effective should be included in the benefits package of the MHI. All care that has *not* proven effective, as well as all care that has proven to be *not* effective, should not be included in the mandatory insurance benefits package. Further, the Committee advised to exclude those benefits from the compulsory health insurance for which the costs are high and the expected benefits are very low. The excluded types of care are referred to as “cost-ineffective” care. The Committee stressed that it is important to consider the effectiveness of a certain treatment in relation to the medical indication and the condition of the patient. (Van de Ven 1996)

It is not unusual for a health insurance system to exclude explicitly by law certain services from the basic benefits. In certain cases, the law would also provide that the otherwise explicitly excluded services could be added to the basic benefits package if scientific studies support the need for their addition (Philippines). In other cases, the law defines the benefits as broad categories of care such as dental care, diagnostic and treatment of a disease in outpatient and inpatient health facilities, while the specific

services covered within each such category are left to be determined by a subsequent regulation, such as the national framework contract between the payer and providers (e.g., Bulgaria).

Adding services to the basic benefits in systems adopting universal coverage is usually conditioned upon the extension of basic benefits until certain targeted population milestones are reached (Philippines). In the meantime, the population not covered by the national insurance system continues to pay out of pocket for health services (Columbia, Philippines) or continues to be a beneficiary of another package of services such as, for instance, those provided by the state/municipalities to the poor (Mexico).

A good example of the use of guidelines in adding services to the basic benefits is the Philippine National Health Insurance Act of 1995 (PNIA), which along with outlining the basic benefits delegates to the administrator of the national health insurance program the right to add services. These services are to be (... appropriate and cost effective) based on, among others, the following guidelines: the services included are prioritized, first, according to cost-effectiveness and, second, according to its potential of providing maximum relief from the financial burden on the beneficiary... (section 10 (d) 3, PNIA).

Based on its enormous experience in supporting health care systems throughout the world, the World Bank offers guidelines on rational public spending for basic benefits. The World Development Report 1993 (World Bank 1993) outlines how governments can invest scarce public funds in cost-effective basic public health services. For \$12-22 per capita per year, developing countries will get the best return on public health spending by investing in a basic package of public health and essential clinical services, including immunizations, school-based health services, programs to reduce alcohol and tobacco consumption, family planning services, TB control, control of STIs, and care for childhood illnesses such as acute respiratory infections, diarrheal diseases, measles, malaria, and acute malnutrition. For about \$40 per person per year, basic hospital care can be included in the package of benefits. The benefits package that is offered can be expanded from this core package of services as the resources available in the health insurance system increase.

On the other hand, some authors argue that it is impossible on the basis of the cost-effectiveness criterion alone to define a mandatory basic benefits package suitable for all societies for all time. As Van De Ven (1996) points out, each society has to make its own choices whether or not “organ and bone transplants and laser operations of the eye...” are cost-worthy care. What can society afford? How large are the altruistic preferences within society? What are the opportunity costs of spending an extra dollar on health care? Each society has to make its own choices and should continuously review and update them.

The determination of a basic package is a process that has to involve research and analysis of data and the answering of difficult political questions mainly relating to which benefits are worth supporting and are affordable and which are not. Copying the experience of other countries in terms of what they have decided they are able to afford cannot be a substitute for a rational and honest decision-making process based on research and analysis of a complex of financial as well as health-related factors. Other countries' benefits packages can illustrate variation in approach to health benefits but are not going to answer the question of key relevance – why these countries have decided to choose these particular services (combinations of services) instead of others. They also cannot answer what is the best universe of benefits for the people of Kazakhstan in terms of population health needs and financial affordability.

B. Financing

In reviewing international experience with respect to financing of MHISs, the following issues were analyzed:

- Who contributes to the health insurance fund (employers, employees or a combination of both, government for the non-working population, pension funds, the self-employed)?
- How should the contribution rate be set for the following groups: employers/employees, government for the non-working population, pension funds, self-employed?

- Is a single-payer system maintained and if so how? If not, what are the consequences?
- Are there mechanisms for redistribution of funds to improve equity?

1. Who Makes Insurance Contributions?

The majority of international experience shows that insurance contributions are collected directly by the administrator of the program. The employer and the employee contribute for employees most often jointly with the contribution fixed as a certain percentage of payroll. These contributions could be paid:

- by the employer and employee in equal shares (Germany, Bulgaria, Korea);
- by the employer and employee in different shares (France, Hungary, Czech Republic); or
- by the employee and the government (Korea – urban and rural regional insurance programs).

In most cases, the health insurance payroll tax is fixed by law (Germany, Russia, Czech Republic). In other cases, the law only provides a cap on its maximum and leaves regulation to determine the actual amount of tax (Philippines). There is usually a maximum income on which the contribution should be paid (Czech Republic, Israel).

The contribution for the self-employed is made by themselves and is usually determined as a percentage of their actual net income for the preceding year (Philippines, Bulgaria, Taiwan).

Contributions for the unemployed, children and other dependents, pensioners, and the poor (in general protected groups) could be made by:

- the employee and the employer for dependents (Taiwan, Philippines, Bulgaria);
- pensioners themselves and the pension funds and/or the government (France, Germany);
- national government/budget (Czech Republic); and
- the national and local governments/budgets (Philippines, Russia, Bulgaria).

While there is little variation in the contributions for the employed, there is considerable variety in who is responsible for the contributions for dependents. A common trend indicates that employers and employees often pay the full or a major part of the contribution for dependents. In some countries, pensioners are considered dependents (Philippines, Taiwan). Local budgets often contribute to the coverage of protected groups, but nowhere are they the sole contributors. Only rich countries such as France and Germany require pensioners to contribute from their pensions. Who makes the contribution for protected groups is clearly a political decision. (Abel-Smith 1992)

2. Setting the Contribution Rate

The contribution rate is the major financing instrument once enrollment and benefits on the one hand, and the tax base on the other, are defined. The payroll tax rate equals the total health expenditures divided by the tax base per member. The tax rate is kept constant under the condition that the expenditure increases equal the increases in the tax base. (Henke 1992)

In countries pursuing universal coverage, the contribution of individual health insurance members does not depend on actuarial estimates of risk related to health and social status, age, sex, occupation, etc. This approach observes the principle of equity, that the rich subsidize the poor, the healthy subsidize the sick, workers subsidize pensioners, and men subsidize women.

3. Single-payer Systems

A single-payer system is either of the following: the funds for health come from a single source such as the national budget, or a system in which funds come from many sources but are all channeled to one payer, which is an institution responsible to pay providers. A single-payer system uses uniform provider payment systems establishing uniform incentives to providers. (See Appendix 2 on the experience of Kazakhstan with health insurance where two payment systems established different incentives and created inefficiencies in the system.)

All countries implementing universal coverage utilize multiple funding sources for the health system with the main sources being health insurance contributions earmarked for health care and general tax revenues at local or national levels. Countries with successful national health insurance systems tend to channel all resources through a single institution responsible to pay providers. Even Germany, which uses approximately 700 sickness funds to pay providers, is recognized to have essentially a single-payer system due to the fact that all funds use the same provider payment systems. This is necessary to avoid the inefficiencies caused by uncoordinated funding, inconsistent price signals, and opportunities for cost-shifting that accompany multi-payer systems. As Abel-Smith (1992) points out, many countries use both taxation and insurance contributions to finance health care services, but they keep them closely coordinated. Multiple sources of financing that are not closely coordinated can lead to waste, as shown by the experience of the United States.

The national health systems reviewed in this study are mostly pure single-payer systems. The single-payer systems are typically initiated during the transition to universal insurance coverage. When budget funds (funds from general taxation) are used to pay for services for the uninsured during the transition to universal coverage, the budget funds are either disbursed under the same provider payment principles as those used by the insurance system, or the budget pays for the uninsured to use services only in specially authorized facilities.

4. Conclusions

International experience leads to the following conclusions:

- National health insurance systems are funded through contributions from employers, employees, self-employed individuals, local and national budgets, pensions, and pension funds.
- Who pays what portion of the overall revenue needed is an issue of public finance, not of health finance.
- The decision on who pays for the contributions of protected groups is clearly political. Under no system, however, is the local budget solely responsible for the contributions for all non-working and vulnerable populations.
- In most insurance systems, revenues are collected directly by the administrator of the program.
- Based on the principles of social insurance, the amount of individual contributions to national health insurance is not determined on the ground of actuarial estimates of risks related to categories of insured. The absence of risk-rating ensures that the principle of equity will be maintained, which is essential in national health insurance systems.
- Establishing a single-payer system is essential to coordinate the multiple sources of finance and create the conditions for efficient use of health resources.

C. Institutional Structure

Many of the health insurance systems reviewed have an institutional structure that allows a separation in authority between the entity that is responsible for paying for health care services and the entity that is

responsible for providing them. This is known as the “purchaser-provider split”. Guidelines for establishing how authority should be split between the purchaser and provider of health care services are given in Appendix 4 in more detail.

The purchaser-provider split is important for the establishment of a competitive environment where providers will compete for the resources of the purchaser. If the purchaser controls the providers, it will always be tempted to support them in a way that would violate the principles of competition. This is one of the main reasons why the purchaser, for example a health insurance fund, is established sometimes as a quasi-governmental body, and why most providers that are not private are publicly, instead of governmentally, owned (for example, operate as non-profit, non-governmental organizations).

The main functions of health purchasers are to take on the financial risk of health care utilization, and to serve as agents for patients and consumers. Serving as agents for consumers means that the purchaser acts as a prudent buyer of health care on behalf of the consumer, and provides information to consumers about quality of care, so that the consumer can exercise a more informed choice of provider.

In different countries, one or more of these functions are performed by a wide array of third-party purchasers, such as health insurance companies (private as well as public), employers, unions, provider groups (such as GP-fundholders in the U.K. and polyclinic-fundholders in Russia), integrated insurer-provider organizations (HMOs), and the government (the national government as well as regional and local government organizations). (Van de Ven et al. 1994)

In many countries, the purchaser is either within the Ministry of Health (MOH), or the MOH has the power to regulate the purchaser (France, Germany, U.K., Philippines, Taiwan). Most countries have placed the administrator of the national health insurance directly under the authority of the MOH. This is done to ensure that the two entities have synchronized their policy decision-making and there is coordination or uniformity in how funding sources are used and providers paid. When the purchaser is quasi-governmental and is not controlled or only partially controlled by the MOH, there is strong rationale for very close coordination between the MOH and the purchaser in provider payment systems, quality control, etc.

A somewhat controversial issue in market-oriented health care reforms is the question of whether or not there should be competition among the third-party purchasers of care. In Belgium, Germany, Israel, the Netherlands, Russia, and Switzerland, the choice has been made in favor of a competitive market for third-party purchasing within the national insurance system. The United Kingdom and Sweden chose for a regional monopoly of the third-party purchaser. In New Zealand, Portugal, and Italy, the option to choose an alternative “third-party purchaser” instead of the regional health authority has been seriously discussed but was ultimately rejected. (Van de Ven 1996)

A system with competing insurance funds has higher administrative costs than those with a non-competitive system of payers. For example, Korea has a large number of small insurance funds (approximately 400 funds covering populations of 30,000 to 200,000). Korea has found that this structure substantially increases administrative costs. The administrative costs in the Korean system range from ten to 22 percent, whereas administrative costs are less than five percent in Canada and the United Kingdom. In addition, the risk pools are small and inequitable, and there is an incentive for the competing purchasers to risk-select and attract enrollees with lower health risks. This situation was encountered in Germany, and the government had to intervene and implement a risk-adjustment scheme to equalize the compensation for variable risks across sickness funds. This further increased administrative costs.

It is not at all clear that there are advantages of a system with competition among purchasers over a system with a monopoly purchaser that could justify the significantly higher administrative costs. With a fixed benefits package and universally set premiums and provider payment levels, the only thing that independent purchasers could compete on is the ability to select low-risk enrollees. This type of competition brings no advantages to enrollees or to the system’s performance as a whole. For this reason,

most countries do not choose to adopt an institutional structure that involves competition among purchasers.

The appropriate institutional structure for national health insurance is one that ensures efficient resource management and provision of quality care. A rational, goal-oriented institutional structure depends on the existence of a purchaser-provider split and ensuring that the administration of the insurance program rests within the jurisdiction of the health sector. To establish a purchaser-provider split in the health system it is not sufficient to change the ownership of providers from state to non-governmental or private. It is crucially important to establish rational, uniform, and competition-based provider payment mechanisms, within the context of a single-payer system, and allow providers the autonomy to decide how to allocate (spend) their resources in response to the incentives of the provider payment mechanisms.

D. Provider Payment and Quality

In reviewing international experience with respect to provider payment and quality assurance systems of MHISs, the following issues were analyzed:

- outpatient (physician) payment;
- hospital payment;
- cost control; and
- quality control systems.

1. Outpatient Payment

Most of the countries reviewed have a fee-for-service payment system for outpatient care (Canada, China, Czech Republic, France, Germany, Israel, Japan, Korea). The fees are uniform at the national or regional level so the same service is reimbursed at the same rate regardless of who provides it. The fee schedules are often negotiated jointly between the insurance provider, government health authorities, and an association representing the physicians. Public insurance schemes that operate their own network of health facilities, such as Mexico, pay a budget for the outpatient facilities, and the physicians receive a salary.

Countries that place a strong emphasis on primary and preventive health care use a per capita payment system for primary care, which pays providers a fixed sum each month for each enrolled person, regardless of the number of services utilized (Chile, Hungary, Philippines, Russia, U.K.). Per capita payment for primary care is typically combined with fee-for-service for diagnostic and outpatient specialty services.

2. Hospital Payment

There are four basic hospital payment systems that are used by national mandatory insurance systems:

- global budgets;
- payment by a daily rate (per diem);
- fee-for-service; and
- payment per treated case (DRG model).

Some countries cover capital expenditures in their provider payment rates, while others cover all or part of capital costs from other sources, usually national and/or local budgets. Many systems use a

combination of one or more of these methods. For example, Germany combines global budgets and per diem rates, and is gradually moving to a DRG-based hospital payment system.

Global budgets are used by both insurance systems that own and operate their hospitals (Mexico), and those that contract with privately owned hospitals (Canada, France). Per diem rates are used by Japan and the Czech Republic. The Czech system incorporates adjustments to the per diem rate to compensate for the exact services provided. China and Korea use a combination of fee-for-service and direct government subsidies for public hospitals. In Korea, the fee-for-service reimbursement of hospitals has rewarded cost-increasing behavior, and the average length of hospital stay increased from 8.59 days to 13.39 days between 1980 and 1988.

Several countries have decided to move toward a system of reimbursing hospitals according to a DRG-based system to address the cost-increasing incentives of per diem and fee-for-service systems, and to introduce efficiency incentives that are absent from global budget reimbursement. Countries reviewed for this study that are moving to a DRG-based hospital payment system include Hungary, Germany, Russia and the United Kingdom.

3. Cost Control

As is evident from the sections above, most national insurance systems rely at least partially on fee-for-service reimbursement for health care providers participating in the publicly financed system. Although these payment methods increase the efficiency of resource utilization by creating competition and rewarding greater productivity, the incentive effects of payment for health care services on a fee-for-service are also highly conducive to exploding costs. It is therefore necessary for these new provider payment systems to be accompanied by mechanisms to control overall health care expenditures.

Expenditures can be controlled on the supply side by limiting overall payments that will be made to providers. Regulation of overall health care spending is introduced in some form in many of the countries reviewed. Expenditure caps can be imposed at the level of the total system, as in the United Kingdom, at the level of the hospital, as in Canada, or at the level of the individual provider, as in Germany. (Preker and Feacham 1995) Supply side expenditure controls are extremely difficult to impose if health care financing is not channeled through a single payer.

Cost control measures can also be introduced on the demand side by controlling utilization by individuals and imposing cost-sharing that will indirectly reduce demand for health care services. Countries that have relied on demand-side strategies to control costs, such as the United States and Korea, have not been successful at containing overall costs, and have introduced economic barriers to obtaining health care that have adversely affected equity.

4. Quality Control

In terms of mechanisms to maintain quality of health care services, all of the systems reviewed allow almost complete free choice of health care provider. Some systems, such as Korea and the United Kingdom, require a referral from a primary care physician for access to hospitals in order to control self-referrals.

In addition to consumer choice as a way to maintain incentives for quality of care, many, but not all, countries have enacted some formal quality control system. Canada and France have recently added formal quality assurance functions to their systems, with France establishing a quality assurance agency in 1991, and Canada recently beginning a process of developing standard treatment protocols. In Bulgaria, quality standards are set by associations of physicians and other health care providers, and approved by the MOH. Quality control in both Bulgaria and Taiwan is conducted through peer reviews and random checks of provider practices. In Hungary, a quality assurance program was introduced in 1991 based on the quality standards of the European Community. In all of the countries reviewed, the development of appropriate information systems has been identified as a crucial element of continuous quality improvement.

5. Conclusions

International experience shows that payment systems and the incentives they create have a powerful effect on all aspects of health services organization and delivery. In Hungary, changes in provider payment have had a much greater impact on the character of health services delivery than earlier changes in ownership and the introduction of health insurance. (Preker and Feacham 1995) In Korea, when a fee-for-service physician payment system was introduced, the number of physician visits per capita doubled within several years (Yang 1995). In addition, the new provider payment systems that accompanied the introduction of health insurance have contributed to a rapid influx of private hospitals. In 1975 (before insurance was introduced), 34.5 percent of hospitals in Korea were public, while only 12.6 percent were in 1987. The potential for such dramatic effects on the structure and performance of the delivery system make it imperative that provider payment systems be designed with some a priori analysis of what the new incentives will be and how providers will respond.

E. Implementation Issues

Some conclusions emerged from the review of the international evidence that generally guide how national insurance systems should be implemented. There appear to be some preconditions for the introduction of MHI into a system such as Kazakhstan's, or those of other former Soviet states, moving from a government financed and provided national health service to a national health insurance model. These include:

- Decentralization of health providers, sufficient autonomy of providers to manage their resources, and a mechanism in place to implement new provider payment systems based on services provided rather than input-based budgets. For example, in the Czech Republic, decentralization of ownership and management of the health sector, and mechanisms for new provider payment systems that pay for services rather than fixed budgets, were pre-cursors to the introduction of health insurance;
- A well-functioning mechanism in place to collect taxes, individual contributions and government transfers for the non-working population;
- A relatively high proportion of the population is found living in urban areas and employed by the formal sector. From Korean experience, it is clear that it is difficult to make a mandatory system with universal coverage when much of the economy is self-employed or in the informal sector, and it is necessary to rely on the individuals purchasing policies. Such a system is difficult to enforce and will inevitably be chronically under funded. In 1988, 19 percent of rural Korean households, and in 1989, 29 percent of urban Korean households, that should have been covered by a "self-employed" plan, refused to pay premiums or join any insurance scheme;
- Consensus on the principles for constructing a benefits package that is realistically aligned with available resources, and a mechanism for including services in and/or excluding services from the benefits package;
- Portability of benefits when programs are decentralized (e.g. Canada). This requires financial transfers across provincial/oblast borders, and, therefore, there must be a mechanism for both sides to agree on the fee schedules; and
- Some agreement on how the deficit will be covered, and who will cover it, in the first few years of implementation as well as over the long run. For example, Taiwan and Germany cover the deficit with national budget funds.

VI. Conclusions and Recommendations

The following conclusions emerged from this review of selected international experience with national MHISs.

- It is crucial to determine the goal of health insurance and its role in the strategy for the health system's long-term development.
- The establishment of a new national health insurance system makes sense only if it has a reasonably high probability of achieving all or several of the following main goals:
 - increasing the overall level of resources in the health care system;
 - achieving universal coverage of basic health care services within a reasonable time limit; and
 - serving as the driver of overall reform of the health sector.
- A considerable amount of careful analysis is needed before embarking on a national health insurance system. The impacts of a new system will be enormous and people will be greatly affected. Korea initiated its insurance system without sufficient analysis and the system now has large inequities, low compliance, perverse incentives in the payment systems, and exploding costs. In contrast, the Taiwanese insurance system was carefully designed from the beginning and has mechanisms to ensure continuous improvement. The system regularly funds 50 or more research projects by external experts to analyze the performance of the system and propose improvements each year. It should be noted that analysis takes time, but it pays off to wait for results and not use a trial-and-error approach in one of the most sensitive areas of social protection. The analysis should include the following main areas:
 - What is the system's situation at present: the system's structure, patterns of funding, results, national health accounts, etc.;
 - What would be the implications on access, equity, efficiency of using a two-tier system of providers (providers funded only by MHI fund to deliver services to the insured and providers funded by the budget to deliver services to the uninsured); and
 - The presumptions or hypotheses that the system is going to be based upon, or use, need to be tested. Thus, it should be tested whether there is a sufficient mechanism under current law to ensure that local governments will pay their contributions to the system; or, whether the insurance system can influence any changes in the providers' behavior if its payments to the providers have to follow the rules of the chapter-based budget system.
- Careful design of the system's main components, such as the law on compulsory health insurance, as well as its implementation details, including the implementing regulations adopted by various state bodies, are equally important to ensure that a well-drafted law can be implemented within the country's regulatory and other environments. Rushing this process might result in a poorly designed system, which could be very costly. All countries with well-designed national insurance systems have used the knowledge of a variety of experts and international experiences. They have also done research and analysis to understand how the system will work and to ensure that they are taking the right steps toward their goal.
- The system needs to ensure that it has a staff of highly qualified specialists trained in economics, management, finance, law, and health policy. A significant majority of these people should be able to use literature in foreign languages, which is the source of information that could help lead the system to innovations and enable it to avoid repeating the mistakes of other national insurance systems. These mistakes could be very costly – many times more costly than the salary of a team of well-trained specialists.

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Appendix 1: Lessons from Kazakhstan's Experience With MHI

Kazakhstan is currently embarking on a strategy to develop its health care system over the next decade, and the reintroduction of an MHIS is one of the health care financing options that is being considered. Because Kazakhstan has had experience implementing a national health insurance system, it is important to analyze this experience carefully to draw conclusions and lessons that can be used in future strategy development. Kazakhstan's experience with MHI was brief, however, lasting less than three years. Many of the system's new processes and technologies, including new provider payment methods and computerized information systems, were just beginning to function when the insurance system was canceled. It is therefore impossible to know what the true effects of these changes would have been on the health care system had they been allowed to mature. Resultantly, it is impossible to draw definitive conclusions about whether the MHI was an overall success or failure.

It is also important to note that this review is taken from a limited perspective, and is only one input into what should be a more exhaustive evaluation of Kazakhstan's experience with an MHIS. The authors do not have complete information about how the MHIS functioned in every oblast, and have closer experience with some oblasts than others. Therefore, not all of the experiences and successes of oblast mandatory health insurance funds (MHIFs) may be captured below.

A. General Overview of Kazakhstan's MHI Experience

Following a pilot test of mandatory insurance schemes beginning in 1993, the Republic of Kazakhstan established the legal basis for a national MHIS in 1995. The insurance system became operational and began financing health care services in April 1996.

The initial design of the mandatory insurance system intended to finance universal coverage of a package of basic health care benefits. The list of benefits covered by insurance was adopted annually by the government. This "basic package" of benefits was in addition to another package of benefits, the "guaranteed package," which was financed by national and local budgets through the MOH. The combined guaranteed and basic packages of benefits were quite comprehensive, barely leaving any services uncovered. These packages of benefits were defined in terms of types of services, sometimes distinguished only by a vague reference to the severity of the case. It was therefore very difficult for health facilities to know whether a service they were providing was covered by the guaranteed or basic package, and therefore financed from the health department budget or the MHIF.

Almost immediately after the MHIS was established conflicts arose between the MHIF and the MOH over the responsibility for financing the guaranteed and basic packages. Because the budget was financing facilities based on budget line items and the MHIF was financing facilities, at least nominally, based on the number of services provided, it was almost impossible to accurately divide the two packages of services. In practice, the MHIF usually financed a certain percentage of the health facility's budget, and the budget financed the remaining percentage through the local health departments. The basic and guaranteed benefits packages were modified several times during the three years of the MHIS, as attempts were made (unsuccessfully) to clarify the relationship between the two packages.

The administrator of the insurance program, the MHIF, was responsible for collecting the insurance premiums directly. Employers made contributions for the employed population, and local budget transfers were supposed to cover insurance for pensioners, the registered unemployed, children, and other protected categories of people. The budget transfer to the MHIF to insure the non-working population was a per capita amount set by the Federal MHIF but subject to modification by local governments.

Local (oblast) branches of the MHIFs collected the insurance tax and budget transfers, directing a certain percentage of revenues to the Federal MHIF. The revenues collected by the MHIF were accumulated in an off-budget fund, and therefore could be pooled at the level of the oblast and allocated to health care facilities through mechanisms other than input-based budgets.

Payment to health care providers was designed from the beginning to move away from fixed input-based budgets to financing based on the number of services provided. Health facilities collected registers or lists of outpatient visits and hospital cases, which were reimbursed according to the established rate in that oblast, city or rayon. In practice, the payment rates were often simply based on each facility's fixed budget divided by the number of visits or cases in the previous year. If the facility did not treat the projected number of cases to earn the exact budget, the payment rate was increased or decreased accordingly. In health reform demonstration sites such as Zhezkazgan, Karaganda, and Semipalatinsk, however, significant advancement was made by oblast MHIFs to implement more sophisticated provider payment systems, which will be discussed in more detail below.

B. Assessment of Kazakhstan's MHI Experience

There are many criteria by which a country's experience with MHI can be measured. The measurement of this experience is not only targeted to providing a benchmark for evaluation of the former system, but also to guide decision makers in their thinking about the goals of the new health insurance system and the measures that need to be taken to ensure that these goals are implemented. The following criteria appear as the most widely acknowledged and, therefore, will be used to evaluate the experience of Kazakhstan.

Did the health insurance manage to:

- bring more resources into the health care system?
- increase the efficiency of resource use?
- enhance the equity of the health system?
- serve as a driving force for reform of the entire health sector?

1. Bringing More Resources Into the Health Care System

The authors of this material do not have the necessary data to support or reject the claim that health insurance brought additional resources into the health care system. A retroactive review of this issue is important for a thorough evaluation of the pros and cons of reintroducing MHI. Being an off-budget system, the MHI may have managed to increase to some extent the predictability of resources available to the health sector, since contributions were collected through a tax earmarked for health care. Prior to the establishment of the MHIF, all funds for health were collected through general taxation, a portion of which was then allocated to health care. The new collection system might have made the revenues in health care more transparent and predictable. However, the introduction of an off-budget fund also caused the budget, with its significant resources, to distance itself from and lower its responsibility to the funding needs of the health system as a whole. Evidence of distancing of budget responsibility includes the failure of the local authorities/budgets to pay their contributions for the non-working population, and at the same time failing to consistently pay for its commitments under the guaranteed benefits package.

In fact, the MHIF was often the only real payer of health facilities. In many regions, the local authorities reduced their funding responsibilities to such low levels that they could not have possibly had any measurable impact on the structure, financing, operations of providers, or the health system as a whole. Was the fact that the MHIF was the only real payer the result of the MHIF's understanding of its new role and responsibility as a new payer? Or was it because the MHIF did not have the authority to spend any of its funds on anything other than health, while the local governments had the autonomy to decide how much of their resources to allocate to health, or even whether to allocate any of their resources to health?

The overall conclusion, without the luxury of analyzing the actual data, is that there appears to have been a shift in financing responsibility with the introduction of the MHIS, but it is unlikely that the resources available for health care increased with the addition of the health insurance system.

2. More Efficient Use of Health Care Resources

This section analyzes whether the MHIS induced greater efficiency in the use of health care resources. It was anticipated that as a health care purchaser that was administratively and financially separate from the provider of health care services (MOH), the MHIF could introduce new efficiency incentives into the health care system. The main mechanisms the MHIF had available to increase efficiency as a separate purchaser in the health sector were pooling health care funds at the oblast level, granting greater budget autonomy to health facilities, and introducing new provider payment systems. The following sections will discuss whether and how the MHIF used these mechanisms, and what conclusions can be drawn about the subsequent improvements in efficiency.

Pooling of Funds and Budget Autonomy

The MHIF was an off-budget fund, which allowed it to pool health care funds at the oblast level and to distribute its funds to providers in more flexible ways, allowing providers greater budget autonomy. This financing structure created the conditions necessary for rationalization and paying for health care services rather than financing physical structures. The role of pooling of health care funds and budget autonomy in creating the conditions for rationalization in the health sector are discussed in greater detail in other documents (Borowitz et al. 1999), and a summary is attached in Appendix 3.

One of the greatest obstacles to rationalizing the health delivery system in Central Asia has been the fragmented budgeting process that maintains separate budgets tied to separate delivery systems at each level of administration (national, oblast, city, and rayon). Establishing an oblast-level health care budget (“pooling of funds”) is a crucial precondition for rationalization, because it allows facilities to be closed or downsized without budget funds leaving the health sector.

Was the advantage of the MHIF off-budget status realized by pooling health care funds? Although the MHIF had the authority to pool its funds at the oblast level and allocate to geographic areas and health facilities based on need and service utilization, in practice this was not realized by the time the MHIS was canceled at the end of 1998. Some regional MHIFs (Semipalatinsk, Karaganda) were planning to introduce a unified oblast health care budget, but these plans were not fully implemented before the health insurance system was canceled and all health care financing was returned to the local budget. In addition, it is not clear that the oblast-level pooling of funds, which includes horizontal pooling across all purchasers (health department and insurance fund) and vertical pooling across all geographic areas, would have been easy to accomplish. Rayon and city governments have significant authority granted through the Republic of Kazakhstan’s law on self-government, and it is not clear that they would have agreed to transfer all of their budget funds to the oblast health budget in addition to the payroll tax generated in their jurisdictions. The existence of the MHIS and its off-budget funding was not enough to ensure oblast-level pooling of health care funds. A stronger legal mandate for oblast-level pooling of health care funds would be necessary to ensure that locally generated health care funds are actually transferred to the oblast level.

Lack of budget autonomy has also inhibited rationalization and limited the efficiency of the health sector. Under historically used budgeting mechanisms, health facilities receive their budgets according to line items (chapters) or treasury classifications, and are limited in their ability to move funds across line items as their needs change. Granting budget autonomy allows health facilities to develop budgets according to business plans, which can be updated throughout the year as needs change, moving funds across line items. The health purchaser retains control by approving overall business plans and collecting financial reports with expenditures reported by budget chapter. The health facility, however, has authority for the internal allocation and expenditure of funds. Was the advantage of the MHIF off-budget status realized by increasing budget autonomy and allocating health care funds to facilities without budget chapter restrictions? Whether or not the MHIF distributed funds to health facilities without budget chapter restrictions was made almost irrelevant in most oblasts by the fact that these facilities were still receiving fixed input-based budgets partially financed through the health department according to budget line

items. Although the budget financing was often reduced or ended entirely for some health facilities, the fixed budgets remained, and the MHIF assumed the obligation of financing these chapter budgets.

New Provider Payment Systems

As discussed above, the health insurance system was designed to introduce new provider payment systems that would pay for services provided rather than input-based budgets. In one of the earliest regulations put out by the Federal MHIF, “acceptable methods” of paying health care providers included per capita payment and fee-for-service for outpatient care, and a case-based payment system for inpatient care. (Government of Kazakhstan Resolution #1845, December 22, 1995)

The implementation of new provider payment methods was variable, progressing quickly in some health reform demonstration sites, while changing in name only in much of the country. In Zhezkazgan and Karaganda, a sophisticated case-based hospital payment system using clinical statistical groups was (and still is) used to pay all hospitals in the oblast. Other oblasts were successful in introducing per capita payment for primary care and a fee schedule for outpatient specialty services based on a resource-based relative value scale.

The success in these oblasts in designing and implementing more sophisticated, market-oriented provider payment systems can be attributed to several factors. First, there was close coordination between the Oblast Health Department and MHIF to develop payment systems that were appropriate, feasible, and understood and accepted by providers. Second, the health authorities in these oblasts developed and implemented computerized information systems that were crucial to both the design and implementation of the new provider payment systems. Third, these oblasts were beginning to address the overall flow of funds issues (oblast-level pooling and chapterless financing), that are required for new payment systems to function properly.

Did the new provider payment systems implemented by the MHIF manage to influence changes in the behavior of providers, which would lead to improvement in the effective use of resources and the quality of care? To change their behavior providers needed autonomy (authority) to use available funds in the most efficient way; that is, they needed the authority to decide how to spend their revenues. Providers needed to move out of the chapter-based budget system, which mandates how much they can spend on different categories of needs (grouped in chapters), and be granted greater budget autonomy.

Unfortunately, the funding from the MHIF alone could not change the providers’ behavior. One of the main reasons for that was that the MHI funding was coming “on the top” of that of the state/local budget. The state would allocate to a facility an annual budget covering certain expenses, while the MHIF would allocate funds for certain other expenses. Thus, neither the state nor the MHIF was paying providers formally for the benefits (health services) delivered under each of the benefits packages. Instead, these two payers were “sharing” the reimbursement of providers. In doing this, they often would refuse to pay providers claiming that certain expenses have been incurred for services falling within the funding authority of the other payer. The purchasers (MHIF and budget) were sharing funding responsibilities not recognizing that they had conflicting goals and a set of conflicting funding principles.

The MHIF was using financial incentives and controlling mechanisms to achieve better quality of services. The MHIF was using a formal system of contracts to connect the type and amount of delivered services to the amount of payment. This was a limited attempt to increase the efficient use of resources. However, at the same time, the budget funding system was allocating resources among providers based on capacity and historical patterns of resource consumption. This payment mechanism was an incentive to providers to maintain excess capacity and did not encourage efficiency improvements. In addition, the two payers were using different reimbursement/funding principles. The reimbursement from the state was prospective, as the budget was determined in the beginning of the year, while the funding from the MHIF was retroactive and based on information from providers about the services delivered. The ultimate result of the coexistence of these conflicting goals and reimbursement/funding was that Kazakhstan’s health insurance system failed to give clear economic signals, and therefore failed to change

the behavior of providers. The conflicting economic signals combined with the lack of autonomy of health providers also inhibited any real rationalization of the health delivery system, which should have been a by-product of the new provider payment systems.

International experience shows that Kazakhstan's experience is not unique. Multiple payers in the health care system often lead to similar results. As Abel-Smith (1992) points out, many countries use both taxation and contributions to finance services but keep them closely coordinated. Multiple sources of finance that are not closely coordinated can lead to waste, as shown by the experience of the United States.

Therefore, apart from the experience in health reform demonstration regions, the advantages of off-budget funding remained largely unrealized. One of the reasons for this was the existence of a dual-payer system of budget and health insurance financing of providers, and the lack of coordination between all actors in the system. Another reason was that in most oblasts the MHIF did not create its own result-oriented provider payment mechanisms which would have enabled it to take advantage of its right to grant greater budget autonomy and distribute funds without budget chapter restrictions. The MHIF could not take advantage of its "privileged" off-budget status to change the behavior of providers to compete with each other for delivery of cost-efficient and high-quality service. Instead, the MHIF continued to use essentially the same chapter-based principles of funding (for salaries and other itemized expenses) as those used by the budget system.

3. Improved Equity

The MHI system was designed well to address the issue of equity as it had the authority to pool all of its health funds within a single oblast to the oblast level and from there to redistribute them in a way adjusted to the populations' special age, sex, rural and urban health needs. In addition, the pooling of funds opened an opportunity for competition among providers (at least in the pilot oblasts of East Kazakhstan and Karaganda) as they could be paid for delivering services to any enrolled (in primary care) or referred (in hospital care) patient. In that respect, the MHI had the necessary mechanism to ensure patient satisfaction from the choice of primary care provider and with this to change the "expensive" trend of patients self-referring to specialists, to a more cost-effective behavior which involved seeing the primary care physician of choice before qualifying for a referral. Again, as discussed above, this potential was not fully realized before the health insurance system was terminated at the end of 1998.

4. Driving Force For Reform

Was the MHIS a driving force for overall reform of the health sector in Kazakhstan? As already discussed above, the role of the MHIF as a driving force for change was limited in many ways by its dependence on local administrations for financing and permission to enact widespread change. The MHIF's position as a change agent was weakened by the fact that it was constantly under-financed and therefore always in debt to health care facilities. In addition, the MHIF's ability to specify contracts with health facilities and thereby begin to drive rationalization of service delivery was also limited by local administrations which would not grant such authority to the Fund and thus weaken the position of local health departments, which were more directly under the control of local administrations.

There is evidence, however, that even given these constraints, the MHIS was beginning to change the roles and relationships among the government, providers, and patients in the health care system. Innovations in provider payment systems, computerized information systems and quality assurance were largely driven by the MHIF and less so by the MOH between 1995 and 1998. In addition, the opportunities presented by the off-budget status of the MHIF at least brought the concepts of pooling of funds and chapterless financing into the health policy debate. It is possible that it was not the MHIF itself, but simply the existence of a new entity competing for some of the MOH's functions which sparked debate, innovation and change.

C. Summary

Kazakhstan's MHI was terminated while it was still being established and taking hold. New provider payment systems, information systems and other new technologies and processes were just beginning to function. It is therefore impossible to determine whether the system was a success or failure. Important lessons, however, can still be gained from Kazakhstan's experience. The framework used in this paper to analyze Kazakhstan's experience can be used not only to assess the past performance of the health insurance system, but also as a framework for the development of any future systems.

The following conclusions and lessons can be drawn from Kazakhstan's experience with MHI.

1. MHI, as it was designed in the previous system, is unlikely to bring additional resources into the health sector. As long as resources are required from the budget to finance a separate benefits package and local governments have the choice of whether to meet their commitments, increases in revenues for the health sector from the insurance system are likely to be accompanied by reductions in budget financing for health.
2. Relying on budget transfers to cover the non-working population at the discretion of local governments was not a reliable mechanism to pay for these population groups' insurance coverage.
3. The health insurance fund as an off-budget fund had the advantages of allowing health care funds to be pooled at the oblast level, and granting health facilities greater budget autonomy and relaxing budget chapter restrictions. The pooling of funds and greater budget autonomy allow rationalization of the health delivery system, and for new market-oriented provider payment systems to be implemented in the most appropriate way. The existence of the MHI system and its off-budget funding was not enough, however, to ensure oblast-level pooling of health care funds and greater budget autonomy. A stronger legal mandate for these changes is necessary to ensure that locally generated health care funds are actually transferred to the oblast level, and that health facilities have greater budget autonomy. The off-budget status was not *sufficient* to realize these advantages, and may not even *be necessary*. There may be other mechanisms such as a special purpose on-budget fund that can achieve the same goals, and should be explored.
4. New provider payment systems were being introduced successfully in oblasts that had close coordination between the Oblast Health Department and MHIF, developed the appropriate computerized information systems for the design and implementation of the new provider payment systems, and that were beginning to address the overall flow of funds issues (oblast-level pooling and chapterless financing), which are required for new payment systems to function properly.
5. New provider payment systems could only have a limited effect on introducing efficiency incentives, changing provider behavior, and driving rationalization of the health sector as long as two coexisting benefits packages and payment systems gave conflicting economic signals to providers, and health providers did not have sufficient management autonomy to make changes in service delivery in response to the system's new incentives.
6. There were allegations of corruption with the MHIF in Kazakhstan. As outside observers of the MHI experience, the authors of this document do not have information about how or why abuses occurred in the system. It is necessary, however, to carefully analyze this issue and include safeguards against corruption in the design of any new health financing system.
7. The health insurance fund did invigorate the health sector, and opened the debate about separating the purchaser and provider of health care services. In addition, the MHIF was the source of innovations in new provider payment methods and information systems. As a driving force for reform, therefore, the MHIF was beginning to play an important role and made many lasting contributions to the health sector in Kazakhstan.

Appendix 2: Historical Development of Selected National Health Care Systems

Canada:

- 1947 – individual provinces began introducing universal hospital coverage.
- 1957 – Hospital Insurance and Diagnostic Services Act provided 50 percent federal funding for medically necessary hospital care, as well as outpatient, diagnostic, chronic, rehabilitative, and acute services. Federal funding was available on the condition that (1) coverage was to be universally available; (2) within an agreed time period diagnostic services were to be covered for outpatients; (3) co-insurance was strictly limited (4) capital costs were not included; and (5) mental hospitals and tuberculosis sanatoriums (which were fully funded by provincial governments) not included.
- Initial provincial plans covered only hospital services.
- Covering only hospital services eventually increased hospital utilization relative to other kinds of treatment. By the 1960s, there was growing recognition that much inpatient care was unnecessary and inappropriate.
- In the transition period, before insurance coverage became comprehensive, the provinces had physician-sponsored medical insurance plans. The insurance plans were voluntary, comprehensive, employment-based plans. Most insurance plans therefore covered healthier populations, but two-thirds of the population had some sort of voluntary coverage.
- 1966 – National Medical Care Insurance Act (Medicare) provided 50 percent federal matching funding for provincial insurance, and required universal coverage, comprehensive services, portability, public management and reasonable access to service.
- All ten provinces met the federal government's conditions and had "Medicare" by 1971, and universal coverage with comprehensive benefits was achieved.
- 1984 – Canada Health Act prohibited user charges and extra-billing under the government insurance plan.

Chile:

- 1924 – Social Security Law provided health services to workers and their families (following the German Bismarck model).
- 1952 – National Health Service (NHS) adopted and implemented in stages. This publicly funded and provided national health service was the major health services provider in Chile for the next 40 years. An NHS was adopted because the Minister of Health revealed that the infant mortality rate for the uninsured population was ten times higher than that of the insured population.
- The Chilean NHS was similar in some respects to the British system; the NHS was financed through a combination of social security contributions and general tax revenues.
- As the NHS was being developed, a law was introduced to unite the management of all hospitals under a single government agency. Hospitals had previously been a combination of private charity hospitals, social security hospitals, and state-run Sanitary Organizations.
- In the 1960s, white-collar workers established their own separate health system (National Medical Services for Employees). By 1968, this system formed the basis of a preferred provider system using private physicians. Beneficiaries of this system could opt out of the public services and use their

insurance contribution to obtain private care. This created a precedent for allowing publicly collected social insurance tax to be channeled through the private sector.

- In 1979, a right-wing military coup changed the composition and ideological orientation of the government. Market-oriented reforms were introduced along with a commitment to maintain a basic safety net for the poorest population.
- A single-payer system for health care was established through the National Health Fund, which collected payroll taxes and pooled these revenues with national budget subsidies.
- Health services were decentralized to 26 regional entities.
- In 1981, the operational authority of primary health care facilities was decentralized to municipal governments. This created opportunity for the development of a private insurance market by allowing the social insurance tax to be transferred to private insurance companies (ISAPREs).

China:

- Before the People's Republic of China (PRC) was founded, all Chinese peasants paid out of pocket for medical services. Both traditional and Western medical practitioners were private fee-for-service providers.
- After the PRC was founded, agricultural collectives were formed which provided health clinics offering primary care to peasants at low cost. The clinics were paid for by the collectives based on the work points they earned. This system also received a financial contribution from peasants through a prepayment mechanism, under which the peasants paid a premium in advance and could obtain reimbursement for a fixed percentage of medical care expenses.
- This system spread across the entire country and, by the mid-1970s, the cooperative medical scheme had been implemented in 90 percent of China's villages.
- Urban insurance began in 1951 with "The Regulation on Labor Insurance of the People's Republic of China." The law stipulated that all enterprises with more than 100 employees should institute labor insurance. The health expenses of workers and staff were paid by the enterprises, and employees' dependents were entitled to 50 percent reimbursement of medical costs.
- In 1952, the employer-based insurance schemes were expanded with the "Regulation of Public Service Medical Scheme." Under this scheme, all government staff, including those who were retired, as well as students in colleges and universities, were entitled to free medical care.
- In the mid-1980s, some provincial and municipal governments decided that their employees can usually have 50 percent of their dependents' medical care expenses reimbursed from the employee's welfare funds, not the funds earmarked for the medical scheme.
- As the employer-based schemes grew, market-oriented reforms weakened the rural collective insurance schemes.
- When the responsibility for financing was transferred from the collective to the household, during the de-collectivization of agriculture at the end of the 1970s, most cooperative medical schemes collapsed. The system collapsed for financial, political and managerial reasons. For example, there were no clear guidelines for the schemes; many schemes were introduced without advice from experts in health planning and financial management.
- By 1985, only five percent of the PRC's villages were covered by rural cooperative medical schemes.

Czech Republic:

- 1992 – “Draft of the New System of Health Care”, which included:
 - demonopolization of the health care system by government;
 - decentralization of services control;
 - creation of a mixture of public and private financing sources;
 - greater freedom of choice for patients;
 - increased autonomy for health providers; and
 - greater emphasis on ambulatory care.
- By 1993, 14,000 physicians, or one-third of general practitioners, went into private practice.
- Nearly all hospitals remain state-owned.
- Health insurance was introduced in 1992 through the General Health Insurance Company (GHIC), a publicly sponsored but nongovernmental company.
- By 1995, the GHIC was the primary insurance program for 73 percent of the population. The remainder of the population is covered by 27 insurance companies that function somewhat like German sickness funds; different funds cover different population groups (e.g. government employees, miners, etc.), and some large companies self-insure.

France:

- Insurance schemes started with mandatory participation of low-paid workers in 1928. The social insurance act of 1930 introduced a compulsory payroll deduction. The scheme was compulsory for employees in lower-pay categories of major commercial establishments and manufacturing industries. Farmers, miners, other rural employees, workers in small enterprises, and lower-paid white-collar workers could contribute to the insurance scheme voluntarily.
- State subsidies supplemented payroll deductions to pay for insurance programs administered by sickness funds or mutual-aid societies (established by labor unions and employer organizations).
- Governmental insurance units at the provincial level were created for individuals who were not able to participate in voluntary insurance.
- In 1945, legislation was introduced to provide for more universal coverage of health insurance.
- In 1967, nearly universal coverage was achieved, as the National Health Insurance Fund for Salaried Workers covered 76 percent of the population; agricultural workers and self-employed (16 percent of the population) were covered by a separate insurance scheme; special welfare programs covered six percent. The remaining two percent of the population gained coverage under a 1978 law, and universal coverage was achieved.

Germany:

- 1880 – social insurance was proposed by Otto von Bismarck as a way to buy political support from the workers in exchange for economic protection and material benefits.
- 1883 – Health Insurance Act was enacted establishing MHI for blue-collar workers and subsequently for the majority of the population.

- 1911 – the second code of the Social Insurance Act was drafted, which among others, regulates contributions benefits and other components of statutory sickness funds.
- After World War II, numerous statutes were enacted concerning public health care.
- 1961 – Federal Department of Health and Human Services was established.
- 1965 – statutory fee-schedules for physician and dental services were established (revised in 1982).
- 1972 – law on financing of hospitals was adopted.
- 1977 – the controversial Health Insurance Cost Containment Law was adopted, followed by the second and third cost containment laws of 1982.
- 1989 – Health Insurance Structural Reform was enacted.
- 1995 – mandatory nursing care insurance was introduced.

Hungary:

- Prior to World War II, the health care system was oriented toward Western practice. Physicians were primarily in private practice and were sometimes associated with insurance companies.
- A well-organized health insurance system was formed in the 1930s, employing trained physicians who served patients in the home. About 30 percent of the population had some kind of health insurance.
- The insurance system was terminated under communist power.
- After World War II, when Hungary came under the Soviet sphere of influence, a highly centralized and government-operated health care bureaucracy was created.
- All physicians and nurses were employed by the government and all hospitals were operated as government institutions.
- The Uniform State Health Service Act, which was approved in 1950, provided the basis for free and universal health care to all citizens.
- From the 1950s to 1980s, a Soviet-style national health service was developed.
- Since 1989, the health care system is slowly moving back to a more Western-style system with more market-oriented principles.
- Health insurance (non-mandatory) was introduced in 1992, in parallel with continued budget funding for state-owned health care facilities.
- Private practice for physicians is encouraged, but relatively few have moved into private practice in order to keep their salaries in state-run facilities.
- Responsibility for hospital management has been largely transferred to municipal or county governments and federations of local governments; hospital boards consisting of local leaders are responsible for governance.

Japan:

- The Health Insurance Law of 1922 provided coverage for miners and factory workers in firms with more than 15 employees. The system was patterned after the German Sickness Fund Model. Private insurance was implemented for large firms over 700, and government-run insurance for smaller firms.

- In 1938, the Ministry of Health and Welfare was established, and the Health Insurance Law extended insurance coverage to farmers, fishermen, and other groups previously not covered.
- In 1958, universal coverage of all citizens was achieved through mandates requiring local governments to guarantee insurance programs for all non-employed persons.

Korea:

- Initially, the health sector consisted of private providers financed by user charges, and government did not interfere in the market. Health insurance was introduced to improve the system's equity and efficiency.
- In 1963, the Health Insurance Act established voluntary insurance. Participation was low, however, and little was accomplished.
- Compulsory health insurance was introduced in the mid-1970s, again with goal of improving efficiency and equity.
- Initially, the program focused on the industrial sector, then gradually expanded to cover government workers and rural and urban self-employed populations.
- The first compulsory social security program for health care applied only to corporations employing 500 or more workers.
- In 1979, a special program for civil servants and private school teachers was introduced.
- In 1980, the civil servant program expanded to cover families of military personnel and pensioners.
- The gap between health services utilization of the insured and uninsured populations widened in the 1980s, leading to political pressure to expand insurance coverage.
- In 1981, voluntary occupational health insurance was introduced to cover groups of self-employed workers with the same occupation.
- In 1983, compulsory insurance for corporations expanded to cover firms with 16 or more employees.
- In 1988, rural regional health insurance was introduced for people in the farming and fishing industries.
- In 1989, a program was introduced to cover self-employed and unemployed people in urban areas, which were the only remaining uncovered groups, and the entire population was covered by national health insurance.
- Although the system is "mandatory", many households have not complied with the national insurance program. In 1988, 19 percent of rural households and, in 1989, 29 percent of urban households which should have been covered by a "self-employed" plan refused to pay premiums or join any insurance scheme.

Mexico:

- A 1942 law established the Institute of Social Security to provide medical services for workers in new government enterprises.
- The state and federal government established relatively modern Social Security health centers and hospitals to serve salaried workers in private enterprises. Self-employed, small-business employees, domestic workers, and part-time employees were excluded.

- In 1954, salaried agricultural workers were added to the Social Insurance system, but the vast majority of small farmers were not covered.
- In 1960, a law extended Social Security coverage to all government employees, but under a different Social Security administrative structure and with more benefits. The armed forces and Pemex (national petroleum monopoly) were also added to the social insurance system.
- By 1973, most urban workers had been added to the Social Security system, and approximately 45 percent of the population was covered.
- Also in 1973, Social Solidarity was created as a consolidation of rural health programs, which was the precursor to IMSS (Mexican Social Security Institute). The IMSS was made responsible for extending rural health programs to a wider group of rural people. New rural facilities under this program were often staffed by new medical graduates who were required to complete one year of public service.
- Following the economic crisis in 1982, a movement began to reform the entire health care system.
- A constitutional amendment made health care a social right and the General Health Law was passed in 1984, which assigned major reform responsibility to the new MOH. The Social Security programs, however, remained independent of the MOH.

Bulgaria	
Coverage	Universal
Benefits Package	Medical and dental preventive services and services for early detection of diseases; diagnostic and treatment of a disease in outpatient and inpatient facilities; medical rehabilitation; emergency care; health care related to pregnancy, childbirth and maternity; abortions due to medical conditions or rape; dental care; medical care at home; outpatient medicines, medical appraisal of working ability; transportation services on medical indication.
Institutional Structure	National Health Insurance Fund (NHIF) and its regional offices established by the Law on Health Insurance.
Single Payer	Yes.
Sources of Financing	The National budget, local budgets, employees and employers contribute independently or in various combinations to the NHIF; employees and employers pay each 50% of the premium for the employee; pensioners are covered by the national budget; unemployed are covered by the local budget; dependents are covered by the insured employee who pays 20% of half of the insurance premium for the first dependent and 5% of half of the insurance premium for subsequent uninsured family members. Contributions calculated on the basis of the minimum salary or basic pension. Beneficiaries are divided into 16 different categories such as: employees, unemployed, pensioners, students, etc. The premium is paid directly to the NHIF.
Private Insurance	
Physician Payment	Physician payment methods are established in the National Framework Contract negotiated annually between the NHIF and the professional associations of physicians and pharmacists.
Hospital Payment	Hospital payment methods are established in the National Framework Contract.
Individual Contributions	For each visit to a physician or dentist – 1% of the minimum salary; For each day of hospitalization – 2% of the minimum salary for up to 20 days per year. Exempted from co-payment are certain categories of people such as minors, unemployed, military conscripts, people receiving social assistance, veterans.
Cost and Quality Control	The quality of care is determined by the National Association of Physicians, the National Association of Dentists, and the NHIF, and is approved by the Minister of Health. Quality should meet the rules for good medical practice which consist of requirements for timeliness, sufficiency and quality of care. Quality and cost are controlled through peer reviews and examinations based on complaints, unexpected random checks of 2% of health providers in the relevant territory, and more frequent checks of offenders.
Choice	Patient choice of provider among those which have signed a contract with the NHIF.

Canada	
Coverage	Universal.
Benefits Package	Province-level health plans can vary the benefits package but must be comprehensive (including long-term care). Excludes most pharmaceuticals, except for the elderly.
Institutional Structure	Public management and oversight; decentralized – provinces have complete authority and responsibility over provincial plans.
Single Payer	Yes.
Sources of Financing	75% taxation (25% federal and 50% provincial) and 25% out-of-pocket (including private insurance). Each province can raise financing how it chooses: general taxation, excise taxes (tobacco, alcohol and gasoline); lottery revenue; some provinces added payroll tax or flat employer-paid premium.
Private Insurance	Prohibited for benefits covered under provincial plans.
Physician Payment	Fee for service; negotiated between medical associations and provincial health plan representatives; fixed provincial global budget for ambulatory care services. Physicians can opt out of public plan and charge people directly, but then they cannot bill anything to public plan; so very few physicians opt out.
Hospital Payment	Negotiated annual global budgets based on ratio of beds and staff per population served, projected volume and case-mix.
Individual Contributions	No user fees for covered services, but significant out-of-pocket payments (mostly drugs and private insurance).
Cost and Quality Control	Global provincial health budget caps. Limits on physical capacity. Clinical practice guidelines under.
Choice	Free choice of physician.

Chile	
Coverage	
Benefits Package	
Institutional Structure	National Health Fund (NHF) with 26 regional offices.
Single Payer	
Sources of Financing	All contributions collected directly by the NHF.
Private Insurance	Private insurance was created when social insurance tax was permitted to be transferred to private companies (ISAPRES) as an alternative to NHF for high income groups 10%-15% of population). Beneficiaries of private insurance may choose to return to the public health insurance system
Physician Payment	Per capita based.
Hospital Payment	DRG-based, determined by episode and diagnosis.
Individual Contributions	
Cost and Quality Control	
Choice	Free choice of provider and insurance plan.

China	
Coverage	Not universal (less than 30% of population); labor insurance (all employees in state-owned enterprises and dependents; most workers in collective-owned enterprises): 17.8% of Chinese population. Public service medical care (government employees): 2.4% of population. Cooperative medical care: 7% of population.
Benefits Package	Appears to be comprehensive for those enrolled in one of the three government schemes.
Institutional Structure	Decentralized – each level of government or each enterprise is responsible for financing health care within its domain. Labor insurance managed by enterprises; public service medical care managed by local health authorities and institutions. Cooperative medical care (agricultural collectives) managed by Management Committee.
Single Payer	No.
Sources of Financing	Labor insurance financed through the Enterprise Welfare Fund; 15% of enterprise's total wages budgeted for health care, which is considered a cost of production. Public Service – government budget (beneficiaries must use specific budget-financed facilities). Cooperative medical care – government subsidies, Collective Welfare fund, individual contributions. In general, government funds 25% of health care expenditures; insurance schemes account for 36% of health expenditures; the remainder is out-of-pocket.
Private Insurance	Numerous private insurance initiatives, particularly in rural areas; 30% of villages have developed some insurance financed in part by profits from collective economic activities or village factories. Shanghai Insurance Company formed in 1982 as profit-making enterprise for rural collective industries.
Physician Payment	Fee-for-service.
Hospital Payment	Fee-for-service and government subsidies for public hospitals.
Individual Contributions	Labor insurance – small "registration fee" for employees and 50% co-payment for dependents; public service medical care has co-payments since 1984. 14% of urban residents and 93% of rural residents pay for all health care out of pocket.
Cost and Quality Control	
Choice	Appears to be no limits on choice.

Czech Republic	
Coverage	73% covered by the General Health Insurance Company (GHIC); 27% covered by 27 insurance companies similar to the German sickness funds – each of these insures special population groups such as government employees, miners, etc. Premiums paid to the GHIC and other insurance companies are the same but supplemental benefits are better at the sickness funds.
Benefits Package	
Institutional Structure	
Single Payer	
Sources of Financing	Sources of contributions: state – 34% of costs; employers and employees – 60%; out-of-pocket payments – 6%. The state does not pay full insurance cost for those it insures, so employers and employees subsidize those insured by the state. Employer/employees' total contribution equals 13.5% of payroll of which 4.5% is paid by the employee and the remainder by the employer. The employee pays 4.5% on up to nine times the national average salary. The national budget (not the local budgets) pays the GHIC directly for the elderly, military, children, other dependent individuals.
Private Insurance	Limited private insurance market exists and usually covers dental care, cosmetic surgery, and certain other amenities.
Physician Payment	Fee-for-service based on the point value of 4,000 reimbursable services.
Hospital Payment	Per diem rate calculated in points per day. Points are calculated for every hospital service provided. Capital spending provided by municipalities and other local sources and the national government.
Individual Contributions	For drugs.
Cost and Quality Control	
Choice	

France	
Coverage	Universal.
Benefits Package	Each insurance scheme provides the same basic package of benefits. Pharmaceuticals are covered based on an approved list. Long-term care added in 1981, although only medical costs are covered, not lodging and food.
Institutional Structure	Strong central control of health sector policy, but decentralized delivery system; Ministry of Social Affairs regulates both health care provision and the insurance funds. County (prefect) Social Security Committee intermediary between insurance funds and providers; all funding flows from insurance providers through local Social Security funds to providers. General wage-earner's sickness fund (81%) – administered by one national board whose director is appointed by Federal Council of Ministers. Agricultural fund (9%); professional worker and self-employed fund (5%). 6% of payroll tax receipts go toward paying for administration of insurance system.
Single Payer	Yes.
Sources of Financing	74% insurance funds (payroll tax: 12.8% employer and 6.8% employee; government contributes directly for unemployed and indigent; elderly pay 1.4% on Social Security income and 2.4% on pensions). 6.2% supplemental insurance; 1.1% local governments; 19% out of pocket. Private insurers pay a 9% tax on revenues to support public insurance funds. Differences in payroll tax contribution rates: civil servants 14.85%; electric and gas board staff 14.8% self-employed 12.8%; voluntarily insured 15.5%-18.25%. 1.1% income/profit tax levied to make up shortfall; taxes on alcohol and tobacco added.
Private Insurance	Benefits beyond public insurance benefits package; 80% of population carries private insurance to cover co-payments and additional benefits.
Physician Payment	Fee schedule – relative value scale (updated regularly by a national committee of physicians, Social Security staff and Ministry of Social Affairs). Specific fees negotiated between medical associations and Social Security insurance organizations.
Hospital Payment	Public and private hospitals have global budgets. Regional caps on hospital expenditures – may be set by federal government. Social Security funds in a region pay the budget for each public hospital based on its share of admissions in the past year. Additional funds can be requested if volume is higher than projected. Private hospitals: overall higher reimbursement than for public hospitals because includes capital costs. 92% of costs of public and private hospitals come from public insurance funds; only 8% from private sources.
Individual Contributions	Patient pays for physicians services initially, then gets reimbursed 75% from insurance fund. 20% co-payments for hospital (waived for elderly and indigent). Co-payment rate for drugs varies: 0 for essential drugs to 60% for "comfort" drugs.
Cost and Quality Control	Quality assurance agency established in 1991. "Smart Cards" for electronic medical record keeping.
Choice	There appears to be no choice of insurance carrier. There appears to be completely free choice of providers.

Germany	
Coverage	<p>Universal.</p> <p>90% covered by Statutory Insurance System (SIS) – opened to all but mandatory for workers earning up to DM 55,000 (adjusted annually) and retired persons who have belonged to the system during their work life. Covers also dependent family members. 90% of SIS are compulsory members, 10% voluntary members.</p> <p>9% covered by Private Insurance Funds (PIF) – could be chosen by individuals earning above a ceiling of DM 55,000 (adjusted annually). Those who choose PIF exit the SIS and can only return to SIS if their monthly income drops below the ceiling.</p> <p>0.7% covered by special government programs for the police and the military.</p> <p>0.3% uninsured at any point in time.</p>
Benefits Package	<p>The following general catalog of benefits is required to be covered by every sickness fund: ambulatory physician care; all inpatient care; prescription drugs; dental care; medical supplies and appliances; recreational stays.</p> <p>Some benefits (such as dental services) are partially insured and co-insurance is available to cover them in full.</p>
Institutional Structure	MOH heavily regulates Sickness Funds (mostly NGOs but some private as well) which contract with providers.
Single Payer	Equivalent to a single-payer on regional level – the result of negotiation for fixed-fee payment between sick fund associations and physician associations.
Sources of Financing	<p>12% from government budget, the rest from contributions from employees and employers. Contributions are collected by the sickness funds through a levy on the payroll (payroll tax) and employers; average contribution rates for employees are 13.5% paid in equal shares by the employee and the employer.</p> <p>Pensioners contribute from their pensions a nationally determined contribution to the sickness funds. 50% of their total contribution is paid by the statutory pension fund ("employer" share). The rest is paid by a special contribution of the employed.</p>
Private Insurance	<p>Available to employees earning more than DM 55,000 (this minimum amount is adjusted annually).</p> <p>Those who choose private insurance cannot return to the national one unless their income drops below the ceiling.</p>
Physician Payment	For ambulatory services, the physician associations get capitated funding from the Sickness Funds and they paid physicians on a fee-for-service basis until 1997. Now global budgets are allocated each quarter to primary care physician groups according to the number of cases being treated. This system limits the number of ambulatory services provided.
Hospital Payment	Capital expenditures (defined as construction cost plus cost of durable equipment) is totally financed by state budget funds (e.g. from taxes).
Individual Contributions	<p>Co-payment of DM 4, DM 6, and DM 8 per different package sizes of drugs.</p> <p>Fixed contribution of DM 20 per year to help cover hospital maintenance costs.</p> <p>The total maximum co-payment cannot be more than 2% of gross annual salary. Categories of people availed from co-payment are: unemployed, welfare recipients, people with small wages, children under 18, and students who receive grants.</p>
Cost and Quality Control	Schedules of fees are agreed nationally between the Association of Sickness Funds and Association of Physicians. Expenditure cap has been in place since 1985 for services agreed between the Association and the Sickness Fund as so many DM per person after adjustment for age and sex.
Choice	Patients have a free choice of primary care provider. They have the right to choose (switch between) sickness funds once a year.

Hungary	
Coverage	Not universal – not mandatory.
Benefits Package	
Institutional Structure	NHIF self-sufficient, semi-independent agency.
Single Payer	No.
Sources of Financing	MOH and county-level taxes support health care services and facilities at the local level. NHIF – payroll deductions by employers and employees and from federal tax funds to cover non-working population. Employer pays overall 43% social insurance payroll tax; employee pays 10% of salary. Overall social insurance collections divided into two funds, one of which is health insurance (40% of revenues).
Private Insurance	Purchasing private health insurance for entire benefits package and opting out of national health insurance fund are permitted.
Physician Payment	Per capita payment for primary care physicians; fee-for-service for specialists.
Hospital Payment	Fee schedule based on "diagnosis-related groups".
Individual Contributions	Quality assurance programs instituted in 1991 based on the Quality Standards of the European Community. Quality management approach is used to upgrade administrative, management and teamwork skills, but lack of developed information systems limit success.
Cost and Quality Control	
Choice	

Israel	
Coverage	Universal.
Benefits Package	Basic package available to all: preventive medicine; health education; ambulatory and mental health care; hospitalization for general medical problems; medical and psychological rehabilitation; supply of medication and medical instruments; preventive dental care for children; emergency care; drug and alcohol rehabilitation. Voluntary (optional) package covered by voluntary fees.
Institutional Structure	MOH supervises the sick funds and is entitled to suspend their certification.
Single Payer	Yes.
Sources of Financing	Compulsory payroll (income based) insurance tax of: 3.1% of wages or portion of wages lower than 50% of the national average wage and 4.8% tax on the portion of the salary which is higher than 50% of the national average wage. The maximum taxable amount is four times the national average wage. Citizens can pay a voluntary supplemental insurance fee in addition to the above to pay for additional health care benefits not included in the benefits package.
Private Insurance	
Physician Payment	
Hospital Payment	
Individual Contributions	
Cost and Quality Control	MOH gradually changes its role from provider (owner of facilities) to supervising the quality of care. Allocated by law fixed funds for research in quality of care directed by a national committee on quality research.
Choice	Free choice of Sick Fund. Sick Funds are required to accept any citizen who applies for membership.

Japan	
Coverage	Universal: 35% covered by national health insurance plans (agriculture workers, self-employed, dependent elderly, unemployed). 29% by government-managed insurance societies funded by employers (professional salaried workers; small company employers; sailors). 26% by privately managed insurance (salaried workers of large enterprises). 10% by mutual aid societies (national and local public employees).
Benefits Package	Minimum benefits prescribed by law must be provided by all insurance schemes, including physician and hospital services; long-term care; dental care and prescription drugs. Beyond minimum benefits, benefits packages vary across four types of insurance plans, and national health insurance least generous.
Institutional Structure	Centralized management of the overall system but highly decentralized service delivery. Social Insurance Medical Fee Payment Fund, a quasi-governmental agency at province (prefecture) level, which serves as an intermediary between insurance plans and providers to review claims, etc.
Single Payer	No, but unified provider payment systems.
Sources of Financing	Employer contributions for employed; local government provides insurance for unemployed. National health insurance: general taxation (50%) and premiums from self-employed. Government-managed insurance plans: contributions from employees; national government subsidy (16%). Privately managed insurance: payroll deduction (3%-9.5%).
Private Insurance	Private insurers are encouraged to offer only supplemental benefits.
Physician Payment	Fee-for-service; national fee schedule based on relative value scale; no regional variation in fees.
Hospital Payment	National fee schedule based on per diem rates; no regional variation in per diem rates.
Individual Contributions	National health insurance: 30% co-payment. Privately-managed insurance: employees 10% co-payment; dependents 20% inpatient, 30% outpatient. Overall, out-of-pocket 12% of health expenditures.
Cost and Quality Control	Government-set targets for health spending linked to growth in GDP; price controls for pharmaceuticals; limitations on fee increases by providers. Quality assurance is a problem; no clear standards of practice or professional accountability.
Choice	Free choice of physicians and hospitals; no choice of insurer.

Korea	
Coverage	Not universal. Universal in theory: 90% of population covered by insurance schemes and 10% by government-initiated public assistance programs. But in reality much of the population does not join the insurance scheme.
Benefits Package	Government determines benefits package, which includes most outpatient and inpatient services; benefit limit of 180 hospital days per years. Supplementary government public assistance program for medical aid for low-income individuals.
Institutional Structure	<p>400 independent nonprofit corporate and regional insurance societies; each society has its own administrative structure and is responsible for financing recurrent expenditures of its members.</p> <p>In practice, the autonomy of the insurance funds is limited by strong regulation by central authorities, and there is little actual competition between funds.</p> <p>Administrative functions (claims processing and payment, data collection) handled by Korean Medical Insurance Corporation and the Federation of Korean Medical Insurance Societies.</p> <p>Since these two bodies are closely monitored by the Ministry of Health and Social Affairs, they can be considered government agencies.</p> <p>Each insurance society has its own director and managers, most are government-appointed employees.</p>
Single Payer	No.
Sources of Financing	<p>Contributions from employers and employees: under corporate program, premiums are shared equally between employees and employers; under urban and rural program, they are shared equally between the government and insured.</p> <p>For the group of insurance plans covering corporate sector and civil servants, employees contribute 3.4%-4.6% of nominal wage.</p> <p>For urban and rural regional programs, households make a monthly contribution based on income class.</p>
Private Insurance	No significant private insurance presence.
Physician Payment	<p>Fee schedule for insurance-covered services; government plays a role in setting fee schedule, but negotiates with all parties.</p> <p>Fees set on a cost-plus basis to allow all providers to earn a profit.</p>
Hospital Payment	Fee schedule for insurance-covered services; government plays a role in setting fee schedule, but negotiates with all parties
Individual Contributions	<p>Three types of cost-sharing: deductible, co-insurance rate of 30% for outpatient clinic; 50% for hospital outpatient; and 55% for hospital inpatient.</p> <p>Informal cost-sharing through special fees not formally part of insurance scheme.</p>
Cost and Quality Control	
Choice	Referral system requires patients to get hospital referral from outpatient physicians.

Mexico	
Coverage	Not Universal. 47% of population covered by two major government insurance schemes (Social Security and Institute for Government workers). 36% covered by MOH program; 7% pay directly for private care; 12% have no direct access to care.
Benefits Package	
Institutional Structure	Social Security system responsible for financing and providing health care for insured population; independent of MOH. Social Security Institute maintains its own network of health care facilities – higher quality than public system. MOH responsible for financing and providing the budget-funded part of the system.
Single Payer	No.
Sources of Financing	Employer social security contributions equal to 13.9% of Mexico City minimum wage. Employee contribution was 3% but has recently been modified to follow a more complex formula. MOH budget financed from general tax revenues.
Private Insurance	
Physician Payment	75% of physicians are on salary with one of the government-sponsored programs. 25% of physicians receive private fee-for-service.
Hospital Payment	Federal government pays about 79% of hospital costs through Social Security and MOH programs.
Individual Contributions	
Cost and Quality Control	
Choice	

Philippines	
Coverage	<p>Phasing in to be Universal.</p> <p>Beneficiaries of existing governmental health insurance programs become members of the new National Health Insurance Program automatically, and other members of society are added progressively. Members who are retirees prior to the Health Insurance Law going into effect are entitled to benefits. Members are also those who reach retirement after the enactment of the law and have paid at least 120 monthly contributions.</p> <p>Citizens in areas where access to health care is very difficult (remote areas) are not included in the program until the Philippine Health Insurance Corporation (PHIC) is able to ensure reasonable access.</p>
Benefits Package	<p>Inpatient hospital care: room and board; services of health professionals; diagnostic, laboratory, and other medical equipment and facilities; use of surgical and medical equipment and facilities; prescription drugs and biologicals; inpatient education.</p> <p>Outpatient care: services of health care professionals; diagnostic, laboratory and other medical examination services; personal preventive services; prescription drugs and biologicals.</p> <p>Emergency and transfer services. Other services that the PHIC determines to be appropriate and cost-effective by prioritizing them first according to cost-effectiveness and second according to their potential to provide maximum relief from financial burden of beneficiary.</p> <p>Certain services are explicitly excluded from the benefit package unless the PHIC decides to include them. Examples: non-prescription drugs and devices; outpatient psychotherapy and counseling for mental disorders, drug and alcohol abuse treatment, home and rehabilitation services; optometry services, normal obstetrical delivery, and cost-ineffective procedures defined by the PHIC.</p> <p>The Health Insurance Law provides that during the first implementation stage of the Health Insurance Program, but no more than five years, the basic benefit package should be determined based on the cost of the package and the available government (national and local) subsidies to cover the widest possible population of persons who have no visible means of income or whose income is insufficient for the subsistence of his family.</p> <p>Certain members receive the so-called supplemental benefit package administered by separate funds established by the PHIC. Such members are the members of the Social Security Medicare</p>
Institutional Structure	<p>The Philippine Health Insurance Corporation (a tax exempt entity), which for considerations of policy coordination and guidance is attached to the MOH (Department of Health). PHIC has offices in every province or chartered city and to any other location that is deemed practicable to bring the services closer to members of the health insurance program.</p> <p>The PHIC manages the NHIF (which is not an entity but simply a pool of funds) and the supplementary funds which are established to cover the cost of benefits above the basic ones of certain members (SSS and GSIS Medicare).</p> <p>The funds in the supplementary funds are the residuals of what is left after the PHIC has deducted from the contribution of the above members their mandatory contribution to the NHIF. The board of PHIC approves the supplemental package of services based on available resources in the supplementary benefit funds.</p>
Single Payer	Yes.
Sources of Financing	<p>Membership fees based on a schedule determined by the PHIC reflecting reasonable, equitable, and progressive contribution based on actuarial studies based on the following guidelines: no more than 3% of the monthly salary for contributions made by employers and employees; contributions made on behalf of poor (indigents) come from the national government (up to 90%) and the rest is paid by the local government and the PHIC. The contribution for indigents should not exceed the minimum contribution set for employed.</p>
Private Insurance	
Physician Payment	The Health Insurance Law allows the PHIC to choose among the following provider payment mechanisms for public and private providers:

	<p>Fee for service based on mechanisms established by PHIC. These could be separate for professional fees and hospital charges or both. The fee should be based on a schedule subject to review every three years.</p> <p>Capitation payments – established on the basis of annual capitation rate guidelines issued by the PHIC.</p> <p>A combination of fee for service and capitation or any of the two, subject to global budget.</p>
Hospital Payment	See “Physician Payment”.
Individual Contributions	
Cost and Quality Control	<p>The PHIC establishes such rules and standards as are necessary to ensure quality of care, utilization or services, and member satisfaction.</p> <p>The cost of the health insurance program should not exceed 12% of total contributions and not more than 3% of the investment earnings collected during the immediately preceding year.</p>
Choice	

Russia	
Coverage	Universal.
Benefits Package	Federal mandatory insurance fund provides basic benefits package, and regional funds can provide supplementary benefits.
Institutional Structure	Federal Fund of MHI oversees regional funds; regional branches of insurance fund develop regulations, manage claims process and disburse funds to providers. In some oblasts, there is a regional fund and also a network of competing insurers. National and regional funds public, non-profit organizations responsible to government authorities.
Single Payer	No.
Sources of Financing	3.2% earmarked payroll deduction, local government contributions for non-working population, and general tax revenue. 1995: general budget revenues 73.9%; payroll tax 26.1%. If competing insurers exist in an oblast, regional health insurance funds pool revenues and allocate to insurers based on a weighted capitation formula.
Private Insurance	Private insurance for supplemental benefits beyond public basic package. Private insurance finances 3%-5% of health care expenditures.
Physician Payment	19.4% of polyclinics paid capitated payment; 14% per treated case (episode); 12.2% fee for service; 10% some combination of payment methods.
Hospital Payment	Under mandatory insurance, 60% of hospitals paid by some sort of case-based payment system.
Individual Contributions	Cost-sharing required for some services.
Cost and Quality Control	
Choice	

Taiwan	
Coverage	<p>Universal.</p> <p>Included 92% of all citizens in the beginning of National Insurance in 1995; included 96.08% of all citizens by the end of 1998.</p> <p>Military personnel and incarcerated are exempted from NHI and are covered by other government programs.</p>
Benefits Package	<p>Benefits defined as provided in cases of illness, injury or maternity. Service items not covered in any of the three cases include: immunization (covered by government), cosmetic and preventive surgery, artificial reproduction, blood transfusion except in emergency cases, hospital day care, clinical trials, food, hearing aids, wheelchairs, over-the-counter drugs and non-prescription drugs which should be used under the guidance of a physician, and other treatments and drugs as determined by the MOH.</p>
Institutional Structure	<p>Bureau of National Health Insurance (BNHI) operates under the MOH. BNHI has six main branch offices each in charge of one of the following activities: handling of insurance applications, premium collection, payment of medical expenses, and management of contracted providers.</p>
Single Payer	Yes.
Sources of Financing	<p>Population divided in six categories (example category five members of households of low-income families and category six veterans and household representatives of veterans).</p> <p>Contributions for each category are covered by at least two of the following. Three main parties contribute to insurance financing: the insured, the government (national and/or local), and the employer. Dependents of insured are also covered, including his/her non-working spouse, children and parents.</p> <p>During the first two years of operation of health insurance, the deficit between collections from contributions and actual expenses is covered by the national budget.</p> <p>The total budget of the BNHI is approved annually by the parliament.</p>
Private Insurance	
Physician Payment	<p>Note: The following provider payment system is being implemented – case payment for some diseases, global budget for dental care and capitation payment for outlying islands. Allocation (payment) methods are determined annually through negotiations among premium payers, providers, and BNHI/MOH. The negotiations reflect the constraints of the total BNHI annual budget approved by the parliament.</p>
Hospital Payment	<p>Allocation (payment) methods are determined annually through negotiations among premium payers, providers, and BNHI/MOH. The negotiations reflect the constraints of the total BNHI annual budget approved by the parliament.</p>
Individual Contributions	<p>Co-payment for outpatient services: 20% of the expenses of either ambulatory or emergency care; 30% if they visit outpatient departments of regional hospitals without referral; 50% if they visit outpatient departments of medical centers without referral.</p> <p>Co-payment for inpatient care – For acute care ward: 10% for the first 30 days; 20 % for 31-60 days; 30% for day 60 and after. For chronic care ward: 5% for the first 30 days; 10% for 31-90 days; 20% for 91-180 days; 30% for 181 day and after.</p> <p>Beneficiaries with excessive number of doctor visits pay a higher user fee plus small charge for each rehabilitation therapy.</p> <p>Pharmacy co-payment plan in process of design.</p> <p>Small co-payment on a few services such as prescription drugs or optician services. About 80% of patients (pregnant, mothers, children, most elderly, patients with some chronic diseases) are exempt from co-payment.</p>
Cost and Quality Control	<p>Quality control: through a peer review whose rules are established by the MOH. To balance its funds' revenue and expenses, a reserve fund is established in the amount of 5% of: each year's surplus, premium overdue charges, profits from the management of the reserve fund. Total amount of the fund should be approximately equal to the total amount of three months of benefit payments.</p> <p>BNHI's budget is 3.5% of total annual medical payment (not contributions).</p> <p>Public satisfaction of the BNHI is also measured regularly.</p>

Choice	
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Appendix 3: Pooling of Health Care Funds and Chapterless Financing



ZdravReform/ЗдравРеформ

Pooling of Health Care Funds

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In the Soviet period, the flow of health care financing in the countries of Central Asia (CCA) was linked to the Ministry of Finance's budgeting process. Health care budgets were formed at each level of local administration, which financed and owned the health facilities under its jurisdiction. This fragmentation of health care budgets led to duplication in the health care system, and created a barrier to effective and equitable reallocation of health care resources. When the health sector was fully funded during Soviet times, the impact of the duplication and inefficiency caused by the fragmented budgeting process was not fully felt. As health sector resources have sharply contracted in the CCA, however, there is an urgent need to consolidate and pool these limited resources, so they can be allocated and managed most effectively.

To pool health care funds, all state or public funds allocated to pay for health services for the entire population of a geographic area are accumulated in a single budget. Health care funds should be pooled horizontally across all parts of the health care system, and vertically across levels of local administration in a geographic area. To be most effective, the geographic area for pooling of health care funds should not be smaller than an oblast. Why do funds need to be pooled horizontally and vertically at the oblast level in the health sector? There are five main reasons, which are discussed below.

First, there is wide variation in the availability of per capita health care resources in the CCA, both within and between oblasts. There is a particularly wide gap in per capita resources between urban areas and rural rayons (districts). These variations in per capita health care resources stem from historical budgeting patterns, which are driven by the relative political and economic power of different local administrations, rather than from variations in the health care needs of the population. Oblast-level pooling of funds is necessary to implement geographic resource allocation mechanisms that improve equity by allocating resources by health care needs.

Second, the public financing of health care services is an insurance mechanism, or a way of pooling the risk of economic loss associated with health problems across groups of people. Risks are pooled to increase the predictability of the loss and to redistribute the costs of unexpected losses. The size of the risk pool is important for several reasons. First, the larger the risk pool, the more predictable the risks and the greater the probability of correctly assessing the probability of a loss occurring. In addition, a small risk pool, such as a rural rayon, may not be able to generate sufficient resources to cover even their predicted losses. Finally, all health insurance mechanisms improve equity by redistributing the costs of illness from the sick to the healthy, and small, fragmented risk pools are a barrier to redistribution. Therefore, health financing and delivery systems that pool resources at the level of local administration weaken the insurance function of a publicly financed health system because they create small risk pools that do not adequately predict or redistribute the costs of losses associated with health problems.

The third reason that pooling of health care funds at the oblast level is important is because it allows planning in the health sector. If health care budgets are fragmented, it is difficult for health policymakers to accurately assess the level of resources available, which is essential information to set health sector priorities and plan capital investments.

The fourth reason that pooling health care funds at the oblast level is important is because it allows a seamless health delivery system to be established. Currently, separate health delivery systems exist at each level of administration: republican, oblast, city, rayon, and rural systems (which were historically tied to collective farms). Each system is financed and operated by different government units. Having five parallel health delivery systems creates tremendous duplication within the health sector. For example, in an oblast capital city there will be an oblast pediatric hospital and a city pediatric hospital, with no clear division between the functions and services provided.

There is no incentive to consolidate health delivery systems under the current fragmented budgeting process, however, because any savings generated in one delivery system by reducing hospital capacity cannot be retained or transferred to another budget, and the funds will leave the health sector. As the level of financing is determined by normatives related to production inputs such as the number of beds, if the overall number of beds decreases, savings are not reinvested but lost to the health sector. This is not the case if the health funds are pooled. The pool of funds remains the same even if facilities or hospital

beds are rationalized. While the current budgeting process contains an incentive not to rationalize health providers, creating a pool of funds removes this perverse incentive, and it becomes easier and more advantageous to rationalize the health sector.

The issue of reinvestment of savings from rationalizing the health sector is critical in the current under-financed system. Currently, only two to three percent of the GDP of most CCA is allocated to the health sector. The overall level of health financing is much too low, with six to nine percent a more reasonable percentage of GDP allocated to the health sector. Therefore, pooling of funds is critical to allow any health sector savings that are obtained through rationalization to be retained in the health sector.

The fifth main reason to pool the health care funds is to implement new provider payment systems, which have the purpose of increasing health sector efficiency. Vertical and horizontal pooling of health funds allows the allocation of health resources to be disengaged from historical budgeting patterns and to be allocated by new payment systems according to activity and the population's health needs. A pool of funds at a geographic level not smaller than an oblast is necessary for new provider payment systems in order to establish the conditions for competition, which include stable prices and the free movement of resources across the system.

Because under new payment systems funding to providers is no longer determined by production input measures, such as the number of beds, but is instead based on the provision of health services to the population, the funds in the system must be allowed to follow the patient. In a competitive system, patients move between providers at different levels of the system and different geographic locations across rayons and cities. Patients, together with their primary care physicians, choose providers based on quality, cost, and convenience, and health funds "follow" the patients to their providers of choice. The choice-driven competition created by free movement of funds across geography and levels of the system is impossible if health funds are not pooled at the oblast level.

In addition, if providers across levels of the system and geographic area are going to compete for funds under the new provider payment systems, they must receive the same price for providing the same service. If funds are pooled at a level lower than the oblast, the same service may be reimbursed at different prices in different rayons or cities. Fair competition is impossible, because facilities in wealthier geographic areas that get reimbursed at higher rates can provide better quality services and attract more patients from other geographic areas. This is frequently observed as the rural population often bypasses the Central Rayon Hospital to obtain services in the oblast center. Therefore, the stable prices needed for health facilities to compete fairly on quality and efficiency can only be achieved if health funds are pooled at the oblast level.

In summary, one of the main goals of health reform is to improve allocation of scarce health care resources to improve the effectiveness and quality of the system. This requires rationalization of the delivery system and the implementation of new payment systems that reward providers for providing more cost-effective, higher quality services and attracting more patients. The horizontal and vertical pooling of health care funds at the oblast level is a necessary precondition for achieving these goals. The pooling of funds is also necessary to improve the equity of the system because it allows health care resources to be allocated according to the health care needs of the population through geographic allocation mechanisms and new provider payment methods.

Appendix 4: Purchaser-Provider Split



ZdravReform/ЗдравРеформ

Health Care Financing

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Health financing is a necessary, but not a sufficient component of any health reform program. Health financing cannot be addressed in isolation, but must be integrated with restructuring of the health delivery system, changes in medical practice, increasing the capabilities of medical workers, the development of information systems, and the involvement of the population. It is not effective to address each piece separately; rather all elements of health reform must be integrated into one comprehensive program.

Issues of health care financing are fundamentally related to how a country's resources are allocated between competing uses in the economy as a whole, and between competing uses within the health sector. Health financing reforms are oriented toward creating the institutional conditions and economic incentives to allocate resources to their highest valued uses. "Highest valued use" is in part a political determination, reflecting the collective values of society about the importance of health and health care relative to other outputs of the economy, and in part determined by more objective measures of the value of outputs relative to inputs.

Resource allocation decisions are made at five different levels of the system, from the decision about the overall level of government resources allocated to health care down to the decision of a health care facility about how to allocate its budget. Health care financing policy determines which institutions make the resource allocation decisions at each level, and how these decisions are made. In the Soviet system, health financing policy was inefficient in how resource allocation functions were distributed among purchasers and providers of health care, and in how resource allocation decisions were made. Many health financing reform efforts in Central Asia have therefore focused on establishing an appropriate split between the resource allocation functions of health purchasers and providers, and changing the mechanisms by which resources are allocated at all levels of the system.

Resource allocation decisions related to health care begin with the decision about the overall level of government resources to allocate to the health sector, which is a political decision. In addition, the fixed amount of government health care resources must be allocated geographically across regions, which is also a political decision. In the Soviet system, all of these functions were, and often still are, largely carried out by the national and oblast political leadership together with the Ministry of Finance.

Once the overall pool of resources available for health care is established in each geographic area, the resources must be allocated across levels of the health care system: primary health care, outpatient specialty care and diagnostic tests, inpatient care, public health, education and research, capital, and administration. Resources must also be allocated across health facilities within each of those parts of the system, and then across inputs and outputs within the health facilities. In the Soviet system, all of these decisions were carried out by the MOH, but greatly influenced by the Ministry of Finance budgeting process based on physical normatives.

Thus, in the Soviet system, the health purchaser, which was a combination of the political leadership, the Ministry of Finance and the MOH, made all of the resource allocation decisions. The providers of health care had no control over health care resources, and therefore had no incentive or capability to change the way they delivered services to be more effective and efficient. The following section outlines how resource allocation functions can be split between the purchaser and providers of health care services to create appropriate economic incentives to make the best use of limited health care resources.

Purchaser-Provider Split

Purchaser-provider split is the division of authority in the process of distributing and using health resources between the health purchaser (national or regional) and health providers. The purchaser-provider split may be achieved through several different policy options, for example, establishing a health insurance system to serve as an independent health care purchaser, or increasing the autonomy and independence of health care providers and reducing MOH control over their internal activities.

With an appropriate purchaser-provider split, the purchaser has the authority to determine how much total funding should be allocated to the health care system, how that funding should be allocated

geographically, and how the funding should be allocated among types of health services. The allocation of resources across types of health services may be an administrative decision, with the purchaser establishing separate pools of funds for each level of the health care system based on administrative criteria. Or the decision may be driven more by market forces, with resource pools set more broadly, and competition between parts of the health care system determining the final resource allocation.

The health purchaser also has the function of determining the system of health provider payment, which is the mechanism by which the purchaser sets the incentives for providers in making their resource allocation decisions. Provider payment systems are the point at which the authority of the purchaser with respect to the allocation of health care funds ends and the authority of the provider begins, or the point at which authority is transferred from purchaser to provider.

First, the health care purchaser determines the level of health care resources in the system and how resources are allocated across each part of the health care system. The next level of decisions involves the allocation of resources across providers within each type of care, for example how to distribute the pool of inpatient funds across hospitals. At this level, the health purchaser is only a passive distributor of funds. The purchaser has already set the payment systems, so now it must simply distribute the funds that providers have earned by delivering services in response to the incentives of the purchaser. By competing with each other for these funds, the health care providers in effect determine the allocation of resources across institutions within one sector of the health care system.

The final level of resource allocation decisions is how health care providers allocate the funds that they have earned across inputs, such as staff, medicines, and equipment, and outputs, which is the mix of services provided. At this level, the provider allocates funds according to the needs of the organization, which are driven by a desire to respond increasingly well to the incentives of the purchaser in order to compete better and qualify for more funding.

Health Care Resource Allocation

Purchaser Decisions
Level one is the decision about how much state (national and local) resources to allocate to the health sector.
Level two is the decision about how resources, collected at the national level, are distributed geographically, or across the oblasts, rayons and cities.
Level three involves the allocation of resources among types of health services – primary health care, outpatient specialty and diagnostic tests, inpatient care, public health, education and research, capital, and administration.
Provider Payment Systems
Provider Decisions
Level four is the distribution of funds among providers within each level of the health care system.
In level five, the health provider allocates funds across inputs and outputs.

Thus, the purchaser-provider split *divides the authority* with respect to allocation and use of health funds, but *preserves the unity* of the process of allocation and use of health funds through the provider payment systems. The purchaser-provider split is a horizontal split between the third and fourth levels of the health financing functions. It is not a vertical split where two government health purchasers, such as an insurance fund and the MOH, implement all five health financing functions or levels. The vertical split is inefficient and ineffective, as there is a duplication of functions. The purchaser-provider split is a technical element in the process of allocation and use of resources. However, it is an absolutely crucial prerequisite to the success of the national health care reform.

Why is the purchaser/provider split important? There are a number of reasons, a few of which include:

- it encourages competition among providers by offering incentives to those providers achieving better results;

- it allows providers to control the results of their work, and by delivering the results desired by the purchaser they can increase the level of their funding; and
- it allows the purchaser to control providers and hold them responsible for the delivery of desirable results.

Financing reforms aimed at more appropriately distributing resource allocation functions between the purchaser and provider will improve the efficiency and effectiveness of the system, or allocate scarce health care resources to their highest valued uses, only if the appropriate conditions are in place to allow resources to move more freely throughout the system. In the CCA, the ability to move health funds is limited for both health purchasers and health providers.

The health purchaser's flexibility in resource allocation decisions is hindered by fragmented health care budgets that are formed at the level of the rayon, city and oblast. This limits the purchaser's ability to allocate funds geographically and across levels of health care in the most efficient and effective way. Health purchasers should have the ability to pool health care funds at the oblast level to use their resource allocation decisions to improve equity, rationalize the health delivery system and implement effective health provider payment systems.

The health providers' flexibility in resource allocation is limited because they receive their financing and must execute their expenditures according to fixed budget line items, or chapters. The health facilities have limited flexibility to reallocate expenditures across these budget chapters, which means they have little capability to respond to the incentives of the payment systems of the health purchaser. New provider payment methods and stronger economic incentives for providers must be accompanied by greater authority to decide how to adapt their operations and spending their resources according to their needs.

Next Steps

In summary, there are three important directions that health financing policy reform in the CCA have begun and should continue to follow to improve the efficiency and effectiveness of their health care systems.

- First, is establishing a split between the resource allocation functions of the health purchaser and provider, with new payment methods as the point of intersection.
- Second, is the pooling of health care funds at a geographic level not smaller than an oblast. This means that all rayon, city, oblast, and republican funds must be pooled into one unified budget.
- Third, is giving greater financial autonomy to health care providers, and allowing the health purchaser to distribute and health providers to spend funds without budget chapter restrictions.